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AUTHOR Smith, Dwight; And Others
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ABSTRACT

This instructional package is one of two designed for low reader students (those reading at a 3-6 grade level) in the vocational area of building maintenance and engineering. The forty-six learning modules are organized into three units: floor care; general maintenance tasks; and restrooms. Each module includes these elements: a performance objective page telling what will be learned, what materials are needed, and how the student will be evaluated; and job step pages which provide information needed to perform the activity and steps necessary to do the task. Illustrations are extensively used. (This document and CE 017 567 are one of four sets of learning modules on building maintenance and engineering. The other three sets are written in formats designed for educable mentally impaired, visually impaired, and regular vocational students. The modules are part of a total set of over 1,300 modules written for different student populations. Dietetic assistant, small engine repair, medical assistant, and graphics are the other vocational areas covered.) (JH)

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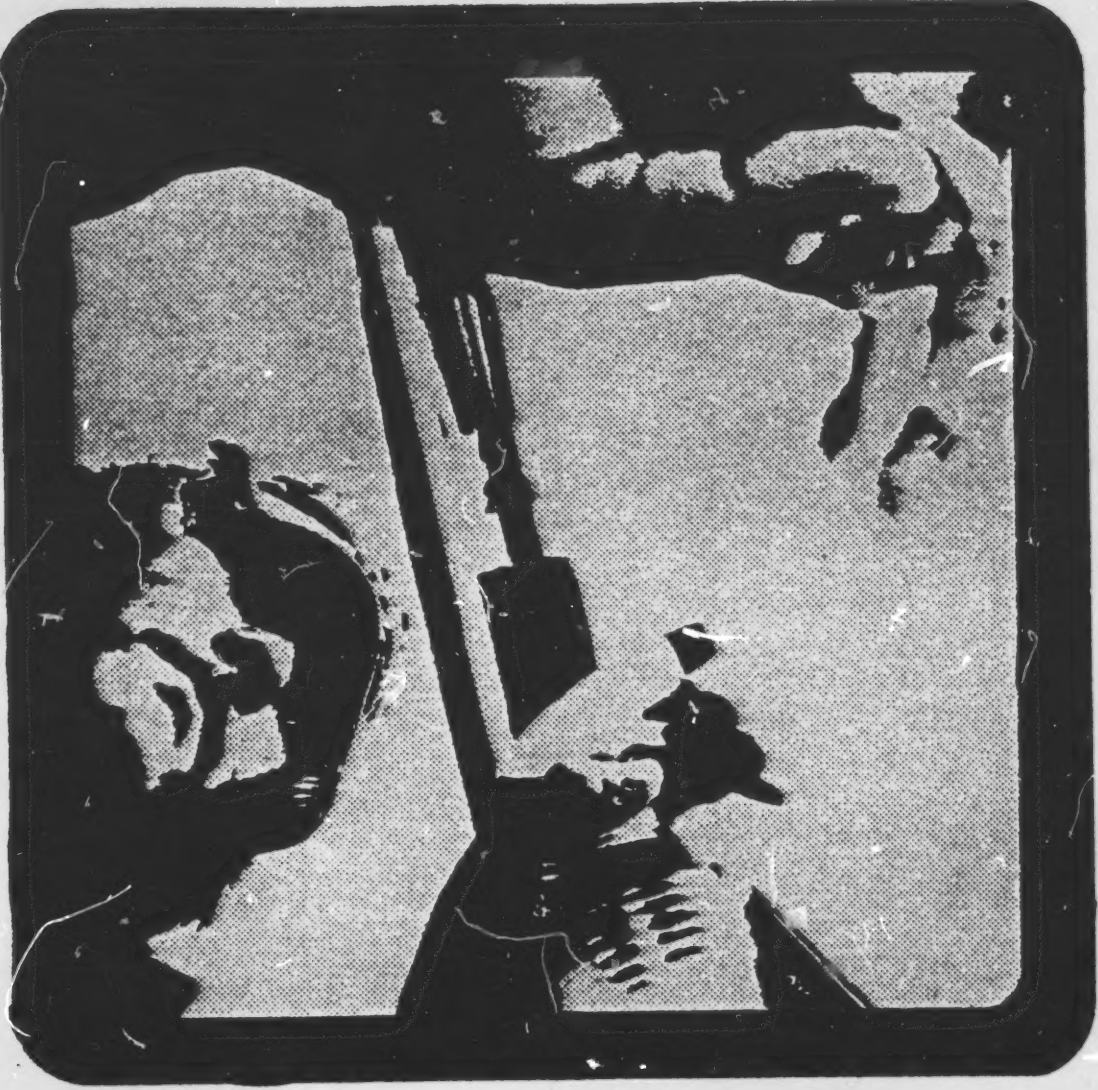
CAPITAL AREA CAREER CENTER
Ingham Intermediate School District
611 Hagadorn Road
Mason, Michigan 48854

TO:
MULTIPLE LEARNING STRATEGIES PROJECT
BUILDING MAINTENANCE & ENGINEERING
Low reader
[Vol. 1]

CE 017 566

U.S. DEPARTMENT OF HEALTH,
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building maintenance & engineering

unit: FLOOR CARE

capital area career center

module: 2201 01 002 3 date: 12/6/76 level: 1

skill title: DUST MOPPING (RESILIENT & HARD FLOORS)

developed & written by: DWIGHT SMITH

visuals by: SANDRA STARNAMAN

RESILIENT - A TERM APPLIED TO "SOFT" TILE FLOORS, SUCH AS ASPHALT, VINYL, OR VINYL ASBESTOS.

BENCH BRUSH - A SHORT-HANDLED BRUSH USED TO SWEEP DIRT FROM CORNERS, AND FROM PILES INTO A DUSTPAN.

PERFORMANCE OBJECTIVE

YOU ARE GOING TO LEARN:

HOW TO DUST MOP RESILIENT AND HARD FLOORS IN AREAS WITH CHAIRS, TABLES AND DESKS.

AND IN ORDER TO DO THIS YOU WILL NEED:



DUST MOP



DUSTPAN



BENCH BRUSH



WASTE BASKET



PUTTY KNIFE

WE WILL KNOW THAT YOU CAN DO IT WHEN:

NO DUST, DIRT, OR PAPERS CAN BE SEEN ON THE FLOOR THAT YOU HAVE DUST MOPPED.

WHAT IS A BENCH BRUSH?

3

A BENCH BRUSH IS _____.

- A. A TOOTH BRUSH.
- B. A BRUSH AS LARGE AS A BENCH.
- C. A SHORT-HANDLED BRUSH TO SWEEP DIRT FROM CORNERS, AND FROM PILES INTO A DUSTPAN.
- D. A BRUSH MADE FROM AN OLD BENCH.

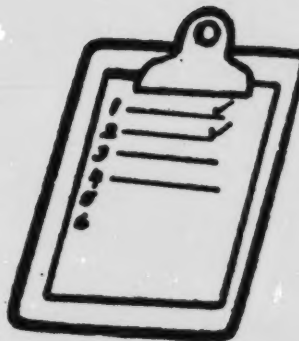
HOPE YOU PICKED "C".

INFORMATION	MATERIALS	LOCATION OF MATERIALS
BE SURE THAT YOU HAVE AN EQUIPMENT CHECKLIST FOR THE FLOOR CARE UNIT. CHECK OFF THE EQUIPMENT YOU WILL NEED TO DUST MOP A FLOOR. WHEN YOU HAVE CHECKED THE EQUIPMENT YOU THINK YOU WILL NEED, SHOW YOUR CHECKLIST TO THE INSTRUCTOR. YOUR INSTRUCTOR WILL TELL YOU IF YOU ARE TO TURN TO THE NEXT PAGE OF THIS MODULE.	EQUIPMENT CHECKLIST	

JOB STEPS

4

1. GO TO THE EQUIPMENT STORAGE AREA. COLLECT THE EQUIPMENT YOU WILL NEED. USE YOUR CHECKLIST TO BE SURE YOU HAVE ALL EQUIPMENT.



2. TAKE THE EQUIPMENT TO THE AREA TO BE DUST MOPPED.

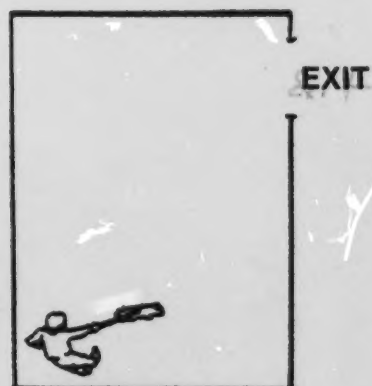
3. USING THE BENCH BRUSH, DUST ANY REGISTERS, RADIATORS, OR CORNERS. PUSH THE DUST ON TO THE FLOOR.



JOB STEPS

5

4. BEGIN DUST MOPPING AT THE POINT FARTEST AWAY FROM YOUR EXIT. DUST MOP TOWARD THE EXIT.



5. HOLD THE DUST MOP, PLACE YOUR FEET AT LEAST 18" APART SO THAT YOU HAVE GOOD BALANCE.

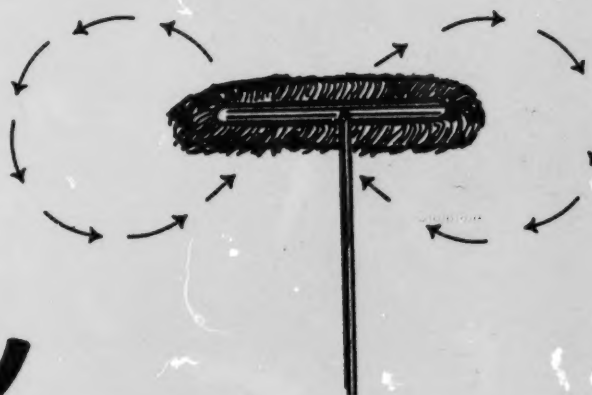
6. PLACE ONE HAND NEAR THE MIDDLE OF THE MOP HANDLE AND THE OTHER NEAR THE TOP. PLACE THE MOP SO THAT THE LONG SIDES OF THE MOP DO NOT FACE YOU.



JOB STEPS

6

7. PUSH THE DUST MOP TO ONE SIDE, THEN TURN YOUR WRISTS (AND THE MOP) AND BRING THE DUST MOP TO YOUR OTHER SIDE. THE MOTION SHOULD FORM A FIGURE EIGHT. WITH THIS METHOD YOU WILL BE ABLE TO DUST UNDER CHAIRS, TABLES AND DESKS.



8. USE YOUR PUTTY KNIFE TO REMOVE OBJECTS OR GUM STUCK TO THE FLOOR.



9. PUSH THE DIRT INTO A PILE.



JOB STEPS

7

10. USE YOUR BENCH BRUSH TO SWEEP DIRT ON TO THE DUST PAN. EMPTY THE DUST PAN INTO THE WASTE BASKET.

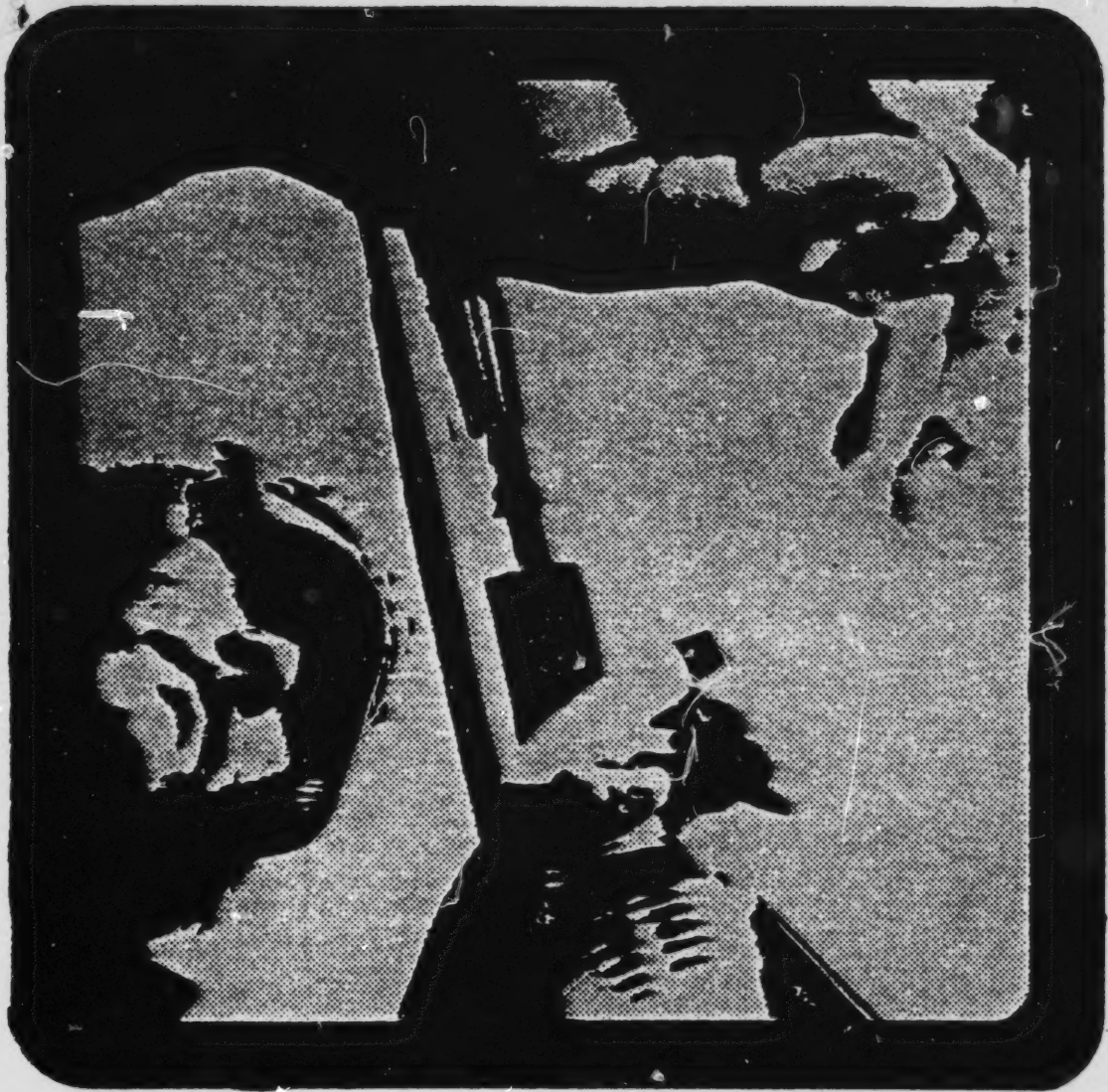


11. WHEN THE FLOOR HAS BEEN DUST MOPPED, RETURN ALL EQUIPMENT TO THE STORAGE AREA.



12. BE SURE TO SHAKE OR VACUUM THE DUST MOP.





building maintenance & engineering

unit: FLOOR CARE

capital area career center

module: 2201 01 002 3 date: 12/6/76 level: 1

skill title: DAMP MOPPING

developed & written by: DWIGHT SMITH

visuals by: SANDRA STARNAMAN

WRINGER - USED TO SQUEEZE WATER FROM MOPS. FITS ON A BUCKET.

PERFORMANCE OBJECTIVE

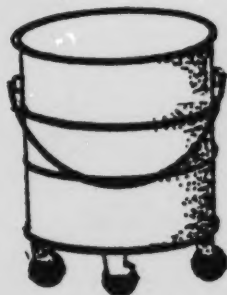
YOU ARE GOING TO LEARN:

TO DAMP MOP A FLOOR

AND IN ORDER TO DO THIS YOU WILL NEED:



MOP



MOP BUCKET



MOP HANDLE



WRINGER

WE WILL KNOW THAT YOU CAN DO IT WHEN:

NO DIRT OR STAINS CAN BE SEEN ON THE FLOOR THAT YOU HAVE MOPPED.



WHICH OF THE ABOVE IS A DAMP MOP?

HOPE YOU SAID "B".

INFORMATION

THE FLOOR SHOULD BE DUST MOPPED BEFORE YOU BEGIN DAMP MOPPING. BY DAMP MOPPING, YOU WILL REMOVE ALL DIRT AND STAINS THAT ARE ON THE SURFACE OF THE FLOOR.

BE SURE THAT YOU HAVE AN EQUIPMENT CHECKLIST FOR THE FLOOR CARE UNIT.

MATERIALS

EQUIPMENT
CHECKLIST

LOCATION OF MATERIALS

INFORMATION

MATERIALS

LOCATION OF
MATERIALS

CHECK OFF THE EQUIPMENT THAT YOU THINK YOU
WILL NEED TO DAMP MOP A FLOOR. SHOW YOUR
CHECKLIST TO YOUR INSTRUCTOR WHEN YOU ARE
DONE.

IF YOUR INSTRUCTOR HAS CHECKED YOUR
CHECKLIST, YOU MAY TURN TO THE NEXT PAGE



CAUTION - NEVER LEAVE YOUR BUCKET
IN DOORWAYS OR AT THE BOTTOM OF
STAIRS.

JOB STEPS

1. IF THE MOP HANDLE AND MOP HEAD ARE NOT ATTACHED, PUT THEM TOGETHER.



2. FILL ONE BUCKET 2/3 FULL WITH COLD WATER. ATTACH THE WRINGER TO THE BUCKET.

JOB STEPS

3. MOVE THE EQUIPMENT TO THE AREA TO BE MOPPED.



4. PLACE A CLEAN MOP IN THE WATER AND DIP IT UP AND DOWN MANY TIMES.



5. PUT THE MOP IN THE WRINGER AND SQUEEZE VERY DRY.



JOB STEPS

6. BEGIN MOPPING AT THE POINT
FARTHEST FROM YOUR EXIT.



7. PLACE ONE HAND NEAR THE MIDDLE OF
THE HANDLE AND THE OTHER NEAR THE
TOP. SWING THE MOP FROM SIDE TO
SIDE IN A FIGURE EIGHT MOTION.

8. ALWAYS MOP BACKWARDS TOWARD YOUR
EXIT. AVOID WALKING ON WET FLOORS.



JOB STEPS

9. WHEN MOPPING UNDER TABLES AND CHAIRS, PUSH AND PULL THE MOP.



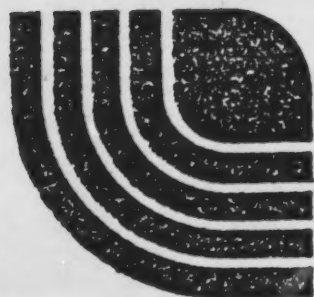
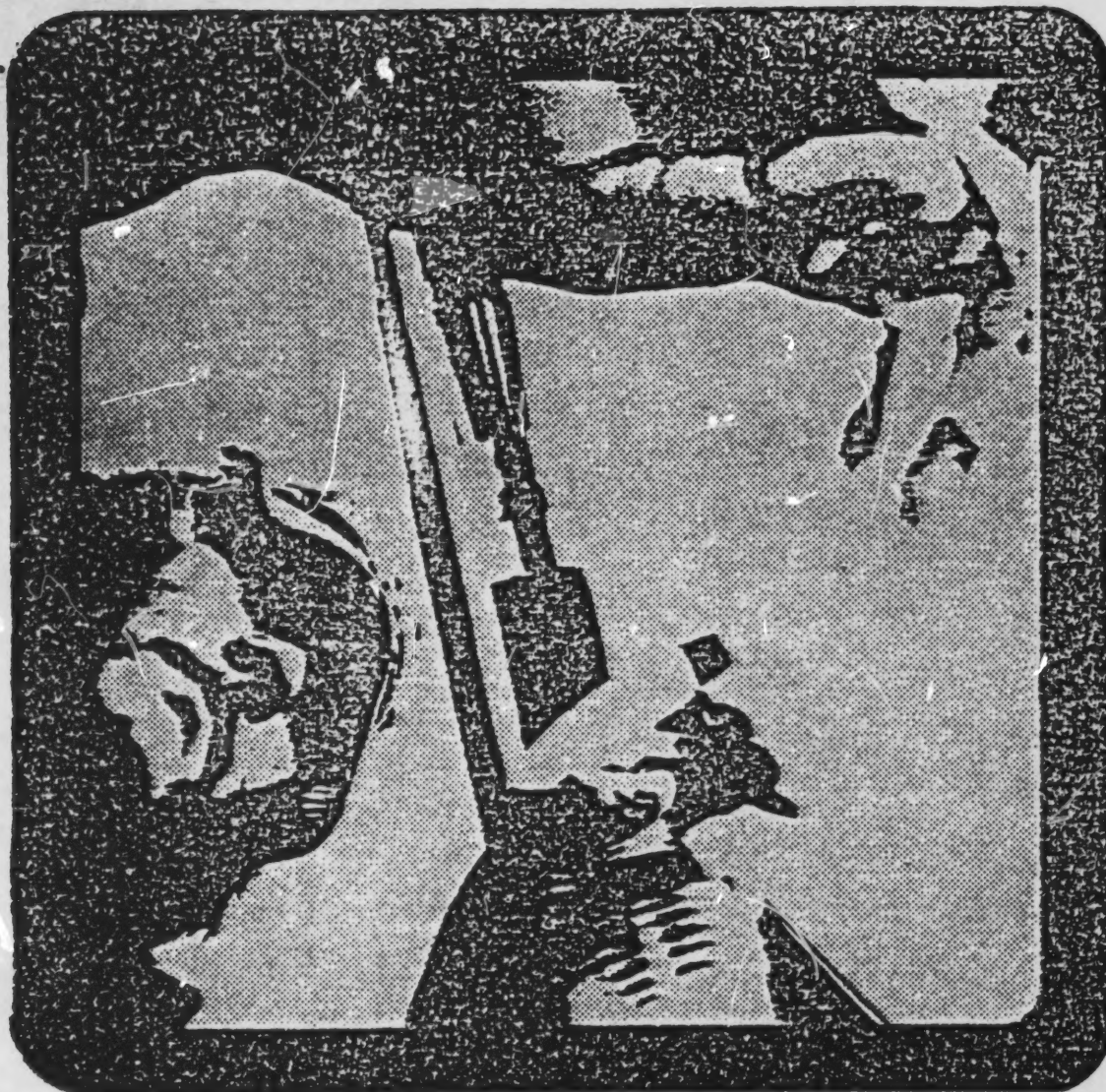
10. WHEN YOUR MOP IS DIRTY, DIP IT INTO THE WATER. USE THE WRINGER TO SQUEEZE OUT WATER.

11. WHEN YOU ARE DONE MOPPING, RINSE THE MOP. THEN WRING OUT THE MOP AND HANG IT UP TO DRY.



12. DUMP THE MOP BUCKET AND RINSE IT.





building maintenance & engineering

unit: WALL CARE

capital area career center

module: 2201 01 003 3 date: FEB/77 level:

skill title: SPOT CLEANING AND WASH WALLS

developed & written by: DWIGHT SMITH

visuals by: SANDRA STARNAMAN

SCAFFOLDING - PLATFORM TO STAND ON
TO REACH PLACES.

PERFORMANCE OBJECTIVE

WHAT YOU ARE GOING TO LEARN:

HOW TO SPOT-CLEAN AND WASH WALLS.

AND IN ORDER TO DO THIS YOU WILL NEED:

HAND DUSTER

ALL PURPOSE CLEANER

DROP CLOTHS

WIPING CLOTHS

LADDER OR SCAFFOLDING

RUBBER GLOVES

SPRAY BOTTLE

STEEL WOOL #00

2 SPONGES

PAPER AND PENCIL

2 PAILS

WE WILL KNOW YOU CAN DO IT WHEN:

YOU HAVE WASHED A WALL AND THERE ARE NO DRIPS, DIRT OR
STAINS AND THE EQUIPMENT IS CLEAN AND PUT IN ITS PROPER
PLACE.

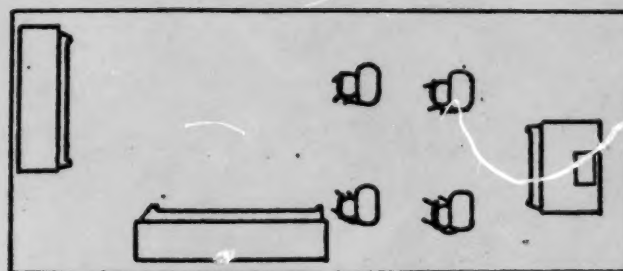
INFORMATION	MATERIALS	LOCATION OF MATERIALS
"WASHING WALLS WITH A MACHINE" "CARE OF EQUIPMENT" WHY DO WALLS NEED WASHING? BECAUSE DIRT AND STAINS BUILD UP. WASHING MAKES THE WALL LOOK BRIGHTER AND MAKES THE PAINT LAST LONGER. HINTS FOR WALL WASHING: 1. USE A CIRCULAR MOTION. 2. DO NOT LET CLEANING SOLUTION DRIP ONTO A CLEAN OR DRY AREA. 3. WASH WOODWORK AND MOLDING WHILE YOU'RE AT IT. 4. TO SAVE WORK LATER, CLEAN YOUR EQUIPMENT.	<u>BUILDING AND PLANT MAINTENANCE</u> <u>BUILDING AND PLANT MAINTENANCE</u>	PAGE 350 PAGE 351-352

JOB STEPS

1. GET THE EQUIPMENT LISTED ON PAGE 2 AND GO TO THE WORK AREA.



2. MAKE A MAP OF ALL THE FURNITURE AND THINGS YOU WILL MOVE.

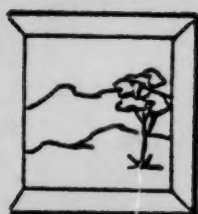


3. MOVE THE THINGS THAT ARE IN YOUR WAY.

 ** CAUTION! 1. GET HELP WITH **
 ** HEAVY THINGS. **
 ** 2. LIFT WITH YOUR **
 ** LEGS, NOT YOUR **
 ** BACK. **

JOB STEPS

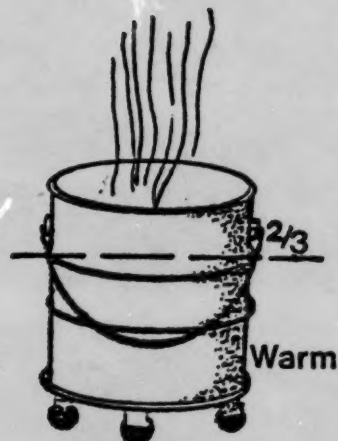
4. SPREAD THE DROP CLOTHS AND PUT OUT THE CAUTION SIGNS.



5. DUST OFF THE WALLS.

WASHING THE WALLS

1. FILL 1 PAIL 2/3 WITH WARM WATER. FILL THE OTHER ONE WITH COLD WATER.



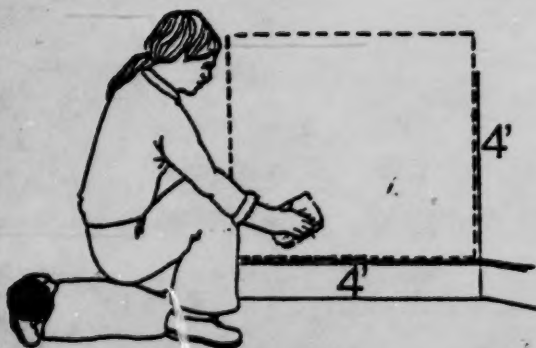
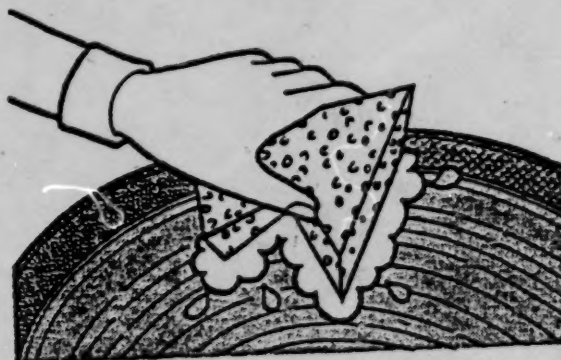
JOB STEPS

2. PUT A CLEAN SPONGE IN EACH PAIL.

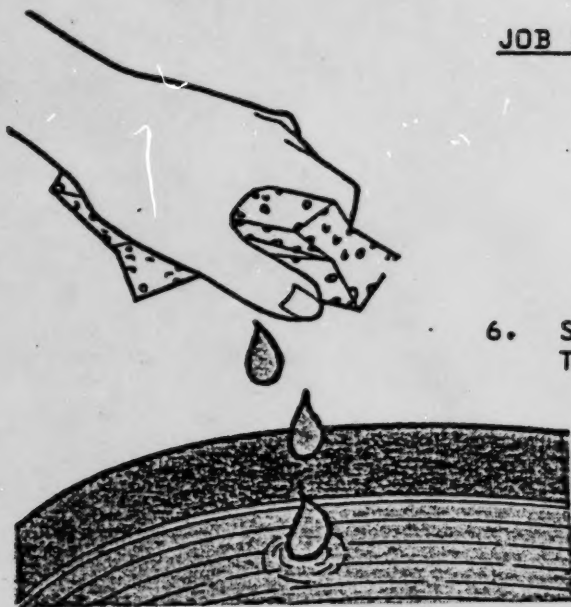


3. PUT 6 OUNCES OF ALL PURPOSE CLEANER INTO THE WARM PAIL. MIX IT UP.

4. SQUEEZE OUT MOST OF THE WATER FROM THE SPONGE IN THE CLEANING SOLUTION PAIL.



5. WASH A 4 FOOT BY 4 FOOT AREA.

JOB STEPS

6. SQUEEZE OUT THE OTHER SPONGE.
THE SPONGE MUST BE SLIGHTLY WET.

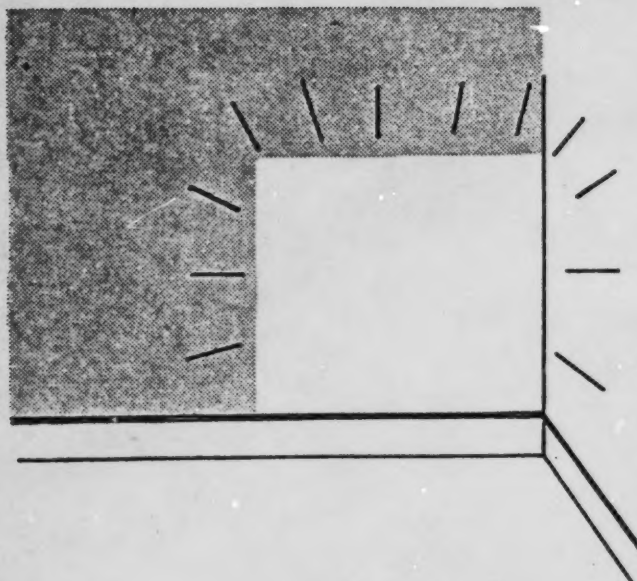
7. RINSE THE AREA YOU JUST WASHED
WITH THE CLEAN SPONGE.



8. WIPE THE AREA DRY WITH A DRY
CLOTH.

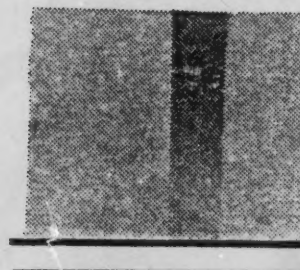
JOB STEPSWORD GUIDE

OVERLAP - TO EXTEND OVER AND RECLEAN
A PART OF A PREVIOUSLY
CLEANED AREA.



9. MOVE OVER INTO A NEW 4 FOOT BY
4 FOOT AREA.

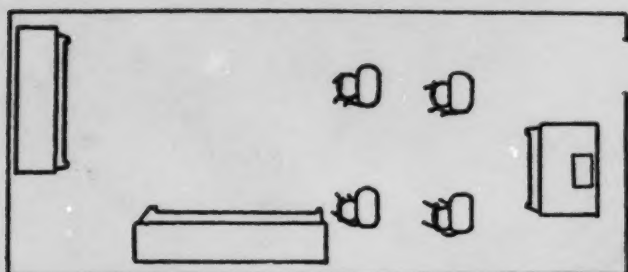
10. REPEAT JOB STEPS 4,5,6,7,8, AND 9
UNTIL YOU CLEAN THE ENTIRE AREA.
OVERLAP 4 INCHES OR SO.



11. CHANGE THE WATER IN THE PAILS
WHEN IT GETS DIRTY.

JOB STEPS

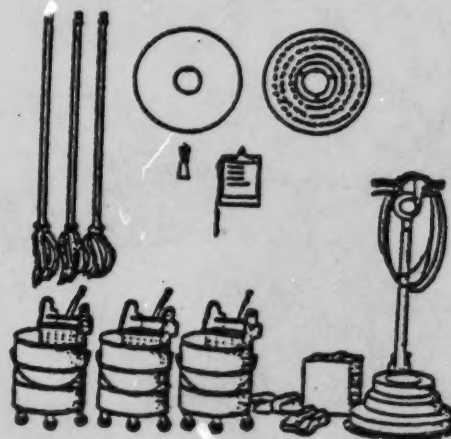
12. WIPE UP SPILLS AND DRIPS AS SOON AS YOU MAKE THEM.



13. PUT ALL THE THINGS YOU MOVED BACK INTO THEIR PROPER PLACE. USE THE MAP YOU MADE TO GET EVERYTHING RIGHT.



14. CLEAN ALL THE EQUIPMENT YOU USED AND PUT IT AWAY.

SPOT CLEANING WALLS

1. FILL THE SPRAY BOTTLE 1/2 WITH CLEANING SOLUTION AND 1/2 WITH COLD WATER.

JOB STEPS

2. SPRAY THE DIRTY SPOTS ON THE WALL.

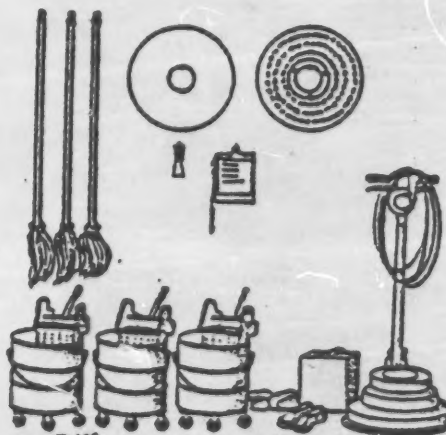
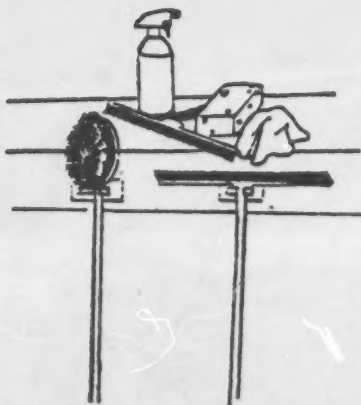


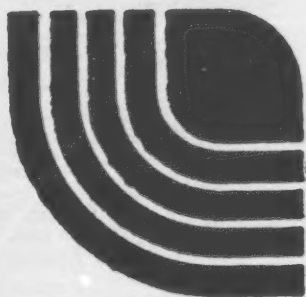
3. WIPE THE SPOTS WITH A CLEAN SPONGE TO REMOVE THE DIRT.

4. DRY THE AREA WITH A CLEAN CLOTH.



5. CLEAN THE SPRAY BOTTLE WHEN YOU'RE FINISHED, AND PUT AWAY THE EQUIPMENT.





building maintenance & engineering

unit: FLOOR CARE

capital area career center

module: 2201 01 004 3 date: 12/8/76 level: 1

skill title: WET MOPPING TO DISINFECT

developed & written by: DWIGHT SMITH

visuals by: SANDRA STARNAMAN

WORD GUIDE

2

DISINFECT SOLUTION - A POWDER OR LIQUID THAT
KILLS GERMS.

DISINFECT - TO KILL GERMS.

PERFORMANCE OBJECTIVEYOU ARE GOING TO LEARN:

TO DISINFECT A RESTROOM FLOOR BY WET MOPPING.

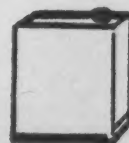
AND IN ORDER TO DO THIS YOU WILL NEED:

MOP AND HANDLE



WRINGER

BUCKET



DISINFECT SOLUTION

WE WILL KNOW THAT YOU CAN DO IT WHEN:

YOU HAVE MOPPED A RESTROOM FLOOR WITH DISINFECT SOLUTION.

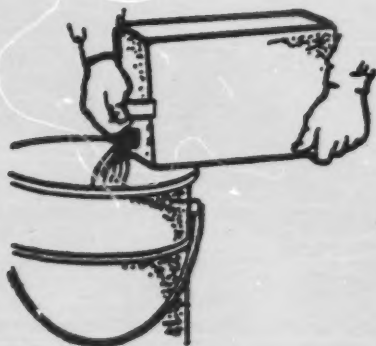
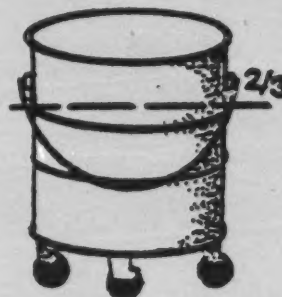
A DISINFECTANT IS _____.

- A. A TOOTHACHE
- B. PART OF A MOP
- C. SOMETHING TO PUT ON HOT DOGS.
- D. A POWDER OR LIQUID THAT KILLS GERMS.

HOPE YOU PICKED "D".

JOB STEPS

1. FILL A BUCKET 2/3 FULL WITH COLD WATER.



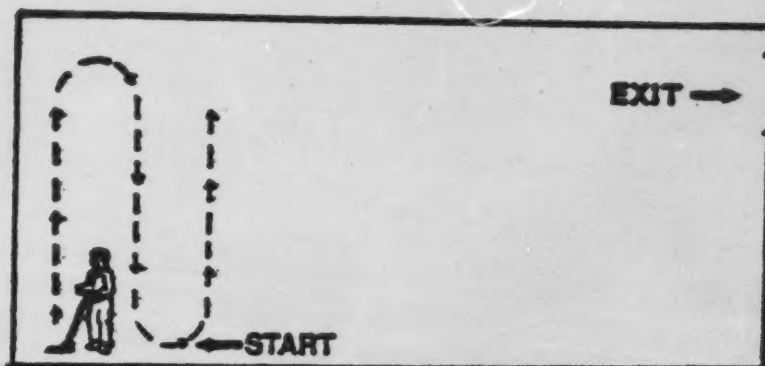
2. READ THE INSTRUCTIONS ON THE DISINFECT SOLUTION. TO ADD DISINFECT TO WATER, FOLLOW INSTRUCTIONS ON SOLUTION BOTTLE. ASK YOUR INSTRUCTOR FOR HELP WITH HOW MUCH TO ADD.

3. MOVE THE EQUIPMENT TO THE RESTROOM TO BE DISINFECTED.



JOB STEPS

4. BEGIN MOPPING IN AN AREA FARTEST AWAY FROM THE EXIT.



5. BE SURE THAT YOUR MOP IS VERY WET WITH SOLUTION.



6. MOP THE FLOOR WITH A FIGURE EIGHT MOTION.



JOB STEPS

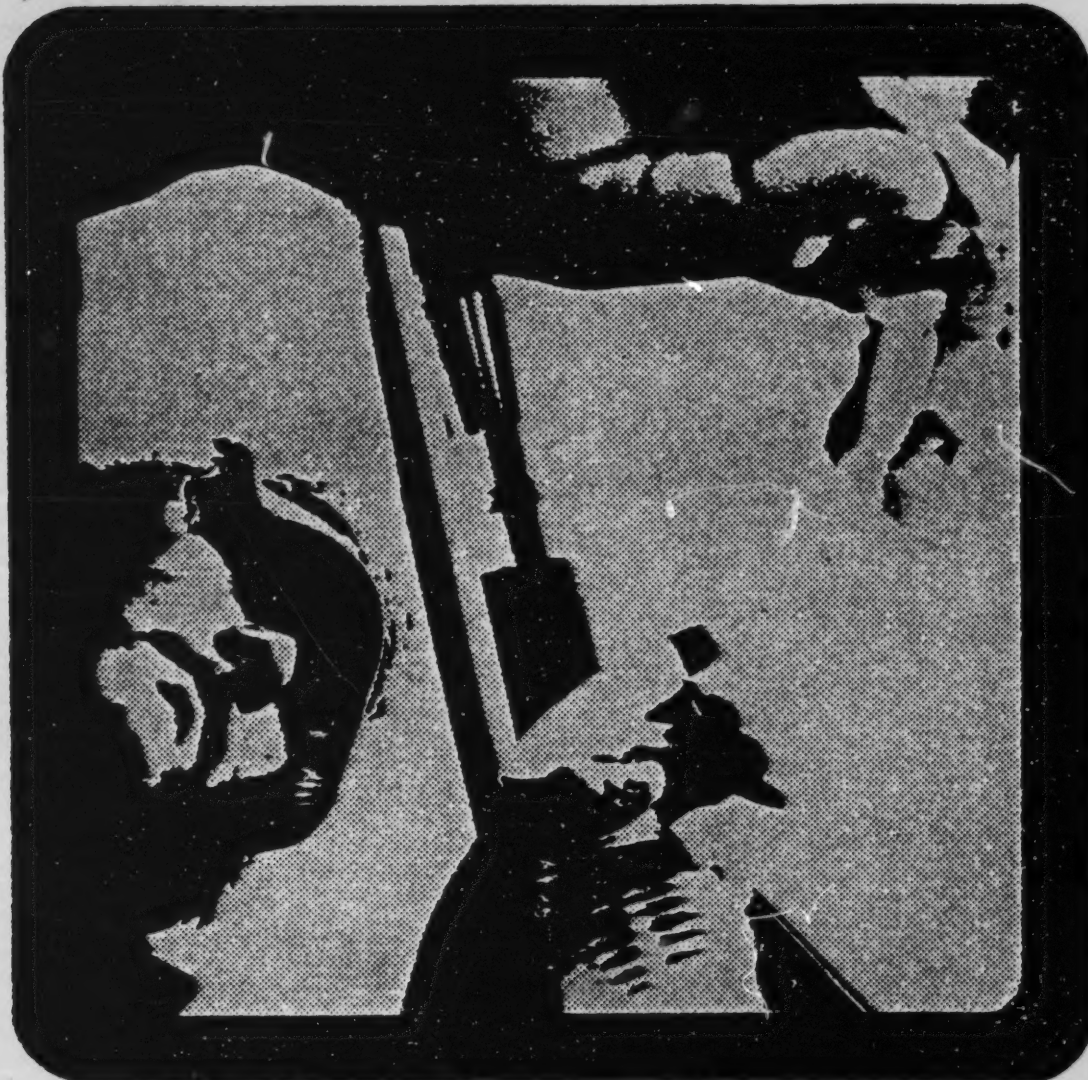
5

7. BE SURE TO RUN YOUR MOP ALONG THE EDGES OF THE WALL.



8. WHEN FINISHED, CLEAN ALL YOUR EQUIPMENT.





building maintenance & engineering

unit: FLOOR CARE

capital area career center

module: 2201 01 005 3 date: 10/25/76 level: 2

skill title: FLOOR STRIPPING (RESILIENT FLOORS)

developed & written by: JACK HELDER

visuals by: SANDRA STARNAMAN

WORD GUIDE

STRIP - TO REMOVE OLD WAX FROM A FLOOR.

RESILIENT - REFERS TO "SOFT"
TILE FLOORS, SUCH AS ASPHALT
VINYL, OR VINYL ASBESTOS.

PERFORMANCE OBJECTIVEYOU ARE GOING TO LEARN:

TO STRIP A RESILIENT FLOOR, BY REMOVING ALL OLD WAX, DIRT, AND
BLACK MARKS.

AND IN ORDER TO DO THIS YOU WILL NEED:

3 MOP BUCKETS



3 WET MOPS



STRIPPING PAD



3 WRINGERS



WOOL KICK PADS



BUFFING MACHINE



WAX REMOVER



SCRUB BRUSH



RUBBER OVERSHOES



PUTTY KNIFE

WE WILL KNOW YOU CAN DO IT WHEN:

1. YOU WATCH AND LISTEN TO THE SLIDE-TAPE.
2. YOU DO THE JOB STEPS BY STRIPPING A RESILIENT FLOOR.

WHAT IS A RESILIENT FLOOR?

A RESILIENT FLOOR IS A FLOOR MADE OF _____.

- A. BRICKS
- B. OLD WAX, DIRT AND BLACK MARKS
- C. BANANA PEELS
- D. "SOFT" TILES, SUCH AS ASPHALT, VINYL, OR VINYL ASBESTOS.

HOPE YOU PICKED "D".

INFORMATION

WHY DO YOU STRIP A RESILIENT FLOOR?

BECAUSE OLD WAX SLOWLY BECOMES DULL, DIRTY, AND COVERED WITH BLACK MARKS FROM SHOES. DUSTING AND MOPPING WILL NOT CLEAN THIS OLD WAX. A NEW COAT OF WAX WILL JUST MAKE THE FLOOR HARDER TO CLEAN.

BY STRIPPING OFF THE OLD WAX AND SCRUBBING OFF THE BLACK MARKS, YOU CAN PREPARE A FLOOR FOR A FRESH COAT OF WAX.

NOW DO:

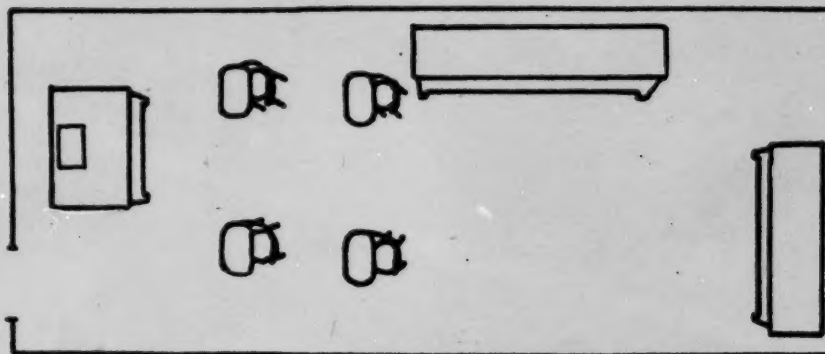
WATCH AND LISTEN TO THE SLIDE TAPE FOR MODULE 2201 01 05 3. YOU WILL BE TOLD HOW TO STRIP A RESILIENT FLOOR.

BE SURE THAT YOU HAVE AN EQUIPMENT CHECKLIST FOR THE FLOOR CARE UNIT.

WHEN YOU HAVE FINISHED THE SLIDE TAPE, CONTINUE THIS MODULE BY TURNING TO THE NEXT PAGE.

JOB STEPS

1. MAKE A MAP OF ALL PRESENT FURNITURE LOCATIONS.



2. MOVE THE FURNITURE AWAY FROM THE AREA TO BE STRIPPED.



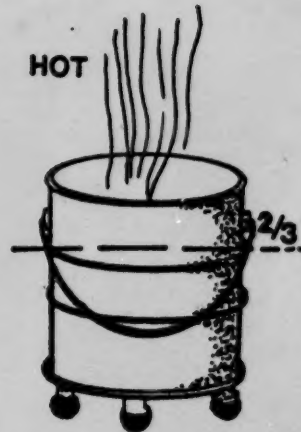
3. DUST THE AREA TO BE STRIPPED.



JOB STEPS

4. FILL ONE BUCKET 2/3 FULL WITH HOT WATER.

HOT



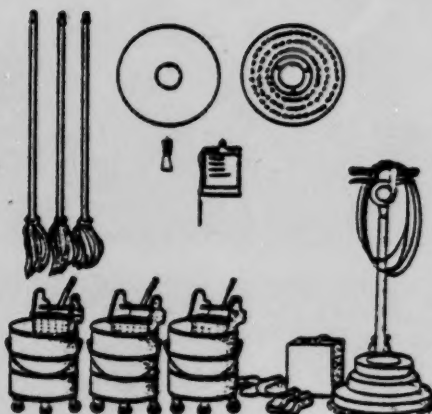
COLD



5. FILL ANOTHER BUCKET 2/3 FULL WITH COLD WATER.

6. WITH YOUR INSTRUCTOR'S HELP, ADD WAX REMOVER TO THE HOT WATER BUCKET.

HOT



7. MOVE ALL EQUIPMENT TO THE AREA TO BE STRIPPED. USE THE EQUIPMENT CHECKLIST TO BE SURE YOU HAVE EVERYTHING YOU NEED.

JOB STEPS

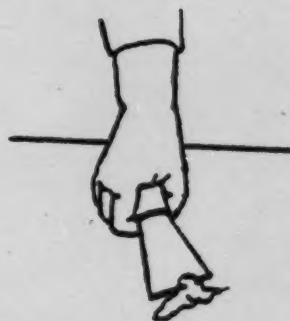
8. PUT A CLEAN MOP INTO THE BUCKET OF HOT WATER AND WAX REMOVER SOLUTION. DIP THE MOP UP AND DOWN MANY TIMES IN THE SOLUTION.



9. PLACE THE MOP IN THE WRINGER, PUSH THE HANDLE DOWN LIGHTLY. LEAVE THE MOP VERY WET.



10. MOP THE AREA. LEAVE THE FLOOR VERY WET WITH THE SOLUTION. USE A PUTTY KNIFE TO REMOVE ANYTHING STUCK ON THE FLOOR.

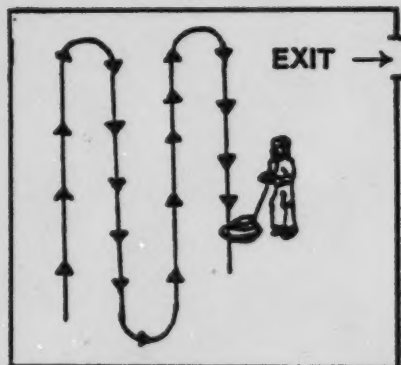
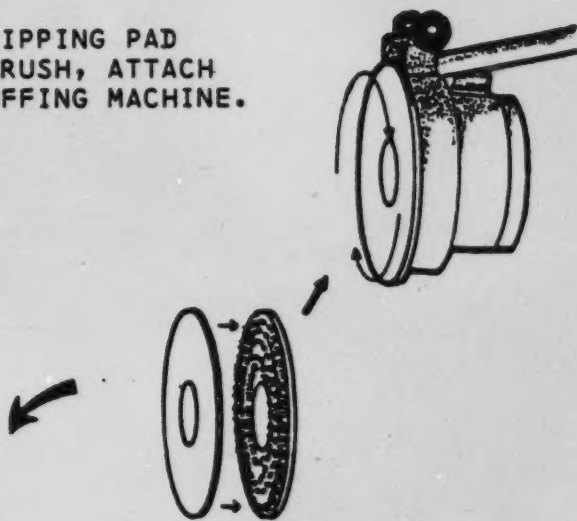


11. ALLOW THE SOLUTION TO REMAIN ON THE FLOOR FOR ONLY 5 MINUTES. THE FLOOR MUST BE DAMP DURING STRIPPING.



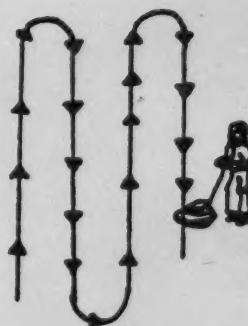
JOB STEPS

12. ATTACH THE STRIPPING PAD TO THE SCRUB BRUSH, ATTACH THEM TO THE BUFFING MACHINE.



13. MOVE THE FLOOR MACHINE TO A POINT FARTHEST FROM THE EXIT AND BEGIN STRIPPING THE FLOOR.

14. WORK THE MACHINE SLOWLY FROM SIDE TO SIDE UNTIL THE WHOLE AREA HAS BEEN STRIPPED.



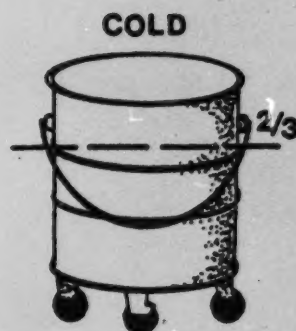
15. REMOVE THE SCRUB BRUSH AND PUT THE BRUSH ON THE BUCKET WITH SOLUTION IN IT. THE BRUSH AND PAD MUST DRIP INTO THE BUCKET.

JOB STEPS

16. USING THE SECOND CLEAN MOP AND THE SECOND BUCKET OF WATER, WET MOP THE WHOLE AREA. WET MOP UNTIL ALL SOLUTION AND DIRT ARE REMOVED.



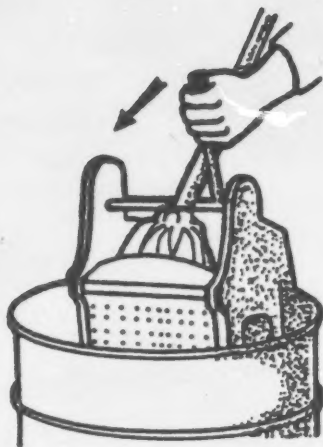
17. FILL THE THIRD BUCKET 2/3 FULL WITH COLD WATER.



18. WITH A CLEAN MOP AND THE COLD WATER, WET MOP THE WHOLE AREA.

WORD GUIDEJOB STEPSINSPECT - LOOK OVER CLOSELY.

19. WHEN THE FLOOR IS DRY, BRUSH YOUR HAND OVER A SPOT. IF THERE IS A WHITE DUST ON YOUR FINGERS, RE-MOP THE AREA WITH A WET MOP.



20. DAMP MOP THE WHOLE AREA. MOP SHOULD BE DAMP ONLY.

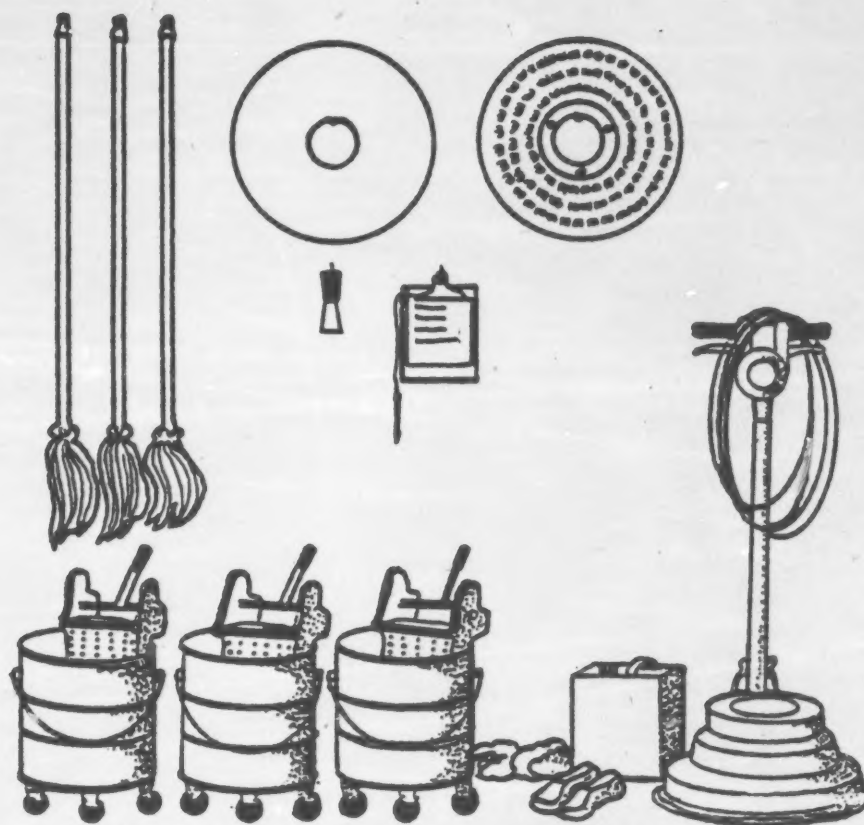
21. WHEN THE FLOOR IS DRY, INSPECT THE FLOOR. BE SURE ALL OLD WAX, DIRT AND BLACK MARKS HAVE BEEN REMOVED.

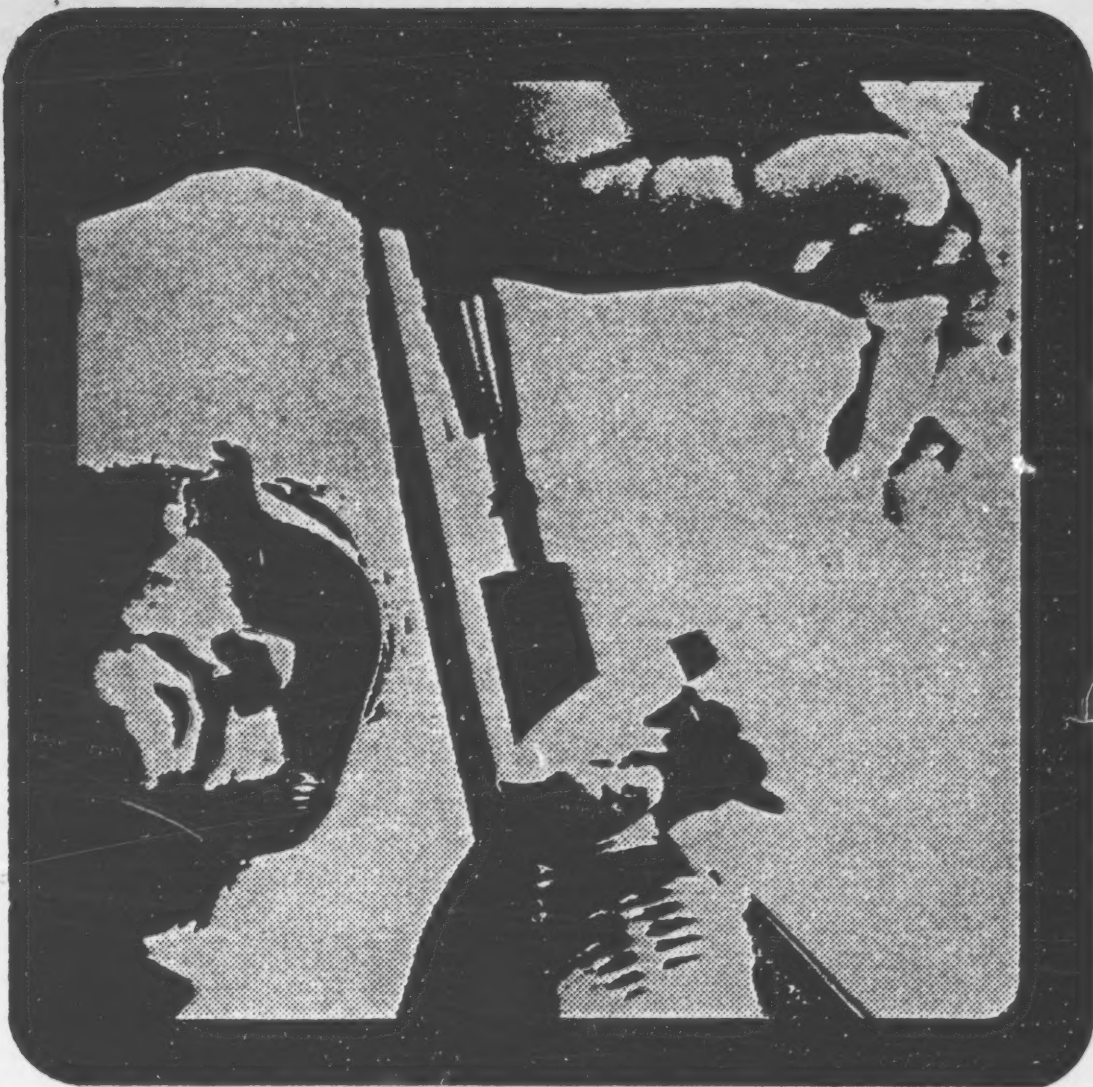


22. WIPE ANY SPLATTER MARKS FROM BASEBOARD, FURNITURE, AND WALLS.

JOB STEPS

23. RETURN ALL MATERIALS AND TOOLS. BE SURE ALL TOOLS ARE CLEANED.





building maintenance & engineering

unit: FLOOR CARE

capital area career center

module: 2201 01 006 3 date: 12-6-76 level:

skill title: WAXING FLOORS

developed & written by: DWIGHT SMITH

visuals by: SANDRA STARNAMAN

3-6

2

PERFORMANCE OBJECTIVE

YOU ARE GOING TO LEARN:

HOW TO WAX A FLOOR.

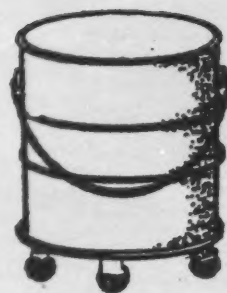
AND IN ORDER TO DO THIS YOU WILL NEED:



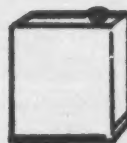
CLEAN MOP AND HANDLE



WRINGER



BUCKET



FLOOR WAX

WE WILL KNOW THAT YOU CAN DO IT WHEN:

THE FLOOR YOU HAVE WAXED HAS AN EVEN COAT OF WAX, WITH NO STREAKS, DULL SPOTS, OR BUBBLES.

INFORMATION

BEFORE STARTING THE JOB STEPS FOR WAXING A FLOOR, BE SURE THAT THE FLOOR IS FULLY CLEANED.

LOOK TO SEE HOW DIRTY THE FLOOR IS. YOU MAY HAVE TO DAMP MOP, WET MOP, OR EVEN STRIP OFF THE OLD WAX.

SEE THE MODULES 2201 01 002 3, 2201 01 003 3, AND 2201 01 005 3 IF YOU DO NOT REMEMBER HOW TO CLEAN A HARD FLOOR.

JOB STEPS

1. GET ALL THE EQUIPMENT YOU WILL NEED TO WAX A FLOOR.

2. POUR ABOUT 4. INCHES OF WAX INTO THE MOP BUCKET.



3. MOVE ALL EQUIPMENT TO THE STORAGE AREA.

4. MOVE ALL FURNITURE OUT OF THE WORK AREA. BE SURE NOT TO BUMP OR SCRATCH IT.



JOB STEPS

5. PUT MOP INTO WAX BUCKET, THEN SQUEEZE OUT THE DRIPPING MOP. PUSH DOWN THE WRINGER HANDLE 1/2 WAY. THE MOP MUST NOT DRIP AFTER YOU HAVE SQUEEZED IT.



6. BEGIN WAXING AT A POINT FARTHEST FROM YOUR EXIT.

7. FIRST WAX ALONG THE OUTER EDGE OF AN AREA AND AROUND ANY FURNITURE THAT REMAINS. BE CAREFUL NOT TO SPLASH THE WAX.



JOB STEPS

8. LIFT UP AND FOLD BACK ANY CARPETS OR RUGS THAT WERE NOT REMOVED. WAX AROUND THE CARPETS OR RUGS.



9. APPLY THE WAX TO LARGER SURFACE AREAS BY USING THE FIGURE 8 MOTION THAT YOU LEARNED IN THE OTHER MODULES.



10. PLACE MOP IN THE WAX BUCKET AND SQUEEZE OUT AS OFTEN AS YOU NEED. YOU MUST APPLY THE SAME AMOUNT OF WAX TO THE ENTIRE FLOOR.

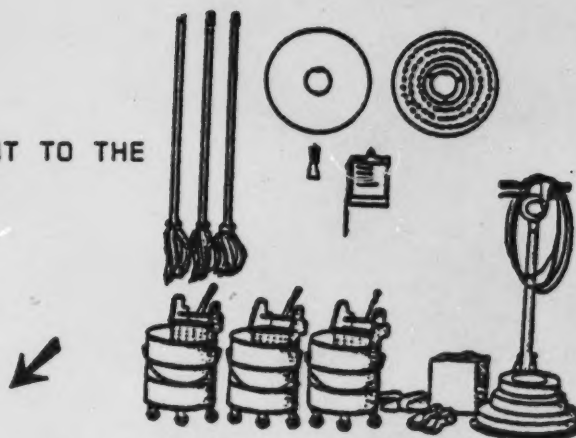


JOB STEPS

11. IF A SECOND COAT OF WAX IS NEEDED, DO NOT APPLY AROUND THE OUTER EDGE.



12. RETURN ALL EQUIPMENT TO THE STORAGE AREA.



13. RINSE OUT YOUR MOP AND BUCKET WITH WARM WATER. BE SURE YOU HAVE SQUEEZED YOUR MOP AS DRY AS POSSIBLE AFTER IT IS RINSED.



14. WHEN WAX IS DRIED, PUT CARPETS AND RUGS DOWN AND MOVE FURNITURE BACK.





building maintenance & engineering

unit: FLOOR CARE

capital area career center

module: 2201 01 007 3 date: 12-08-76 level: 1

skill title: SPRAY BUFFING

developed & written by: DWIGHT SMITH

visuals by: SANDY STARNAMAN

WORD GUIDE

GLOSS - BRIGHT POLISH OR SHINE.

HIGH TRAFFIC AREAS - AREAS LIKE DOORWAYS, CORNERS, AND HALLS THAT ARE OFTEN WALKED ON.

SCUFFS - SHOE MARKS OR SCRATCHES FROM MOVED FURNITURE.

PERFORMANCE OBJECTIVEYOU ARE GOING TO LEARN:

HOW TO SPRAY BUFF A FLOOR.

AND IN ORDER TO DO THIS YOU WILL NEED:

FLOOR BUFFER

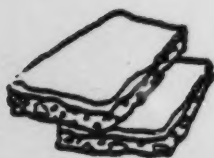


SPRAY ATTACHMENT

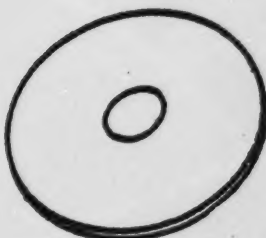


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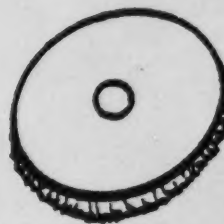
SPRAY BOTTLE



STEEL WOOL KICK PAD



BUFFING PAD



BRUSH



FLOOR WAX

WE WILL KNOW THAT YOU CAN DO IT WHEN:

YOU HAVE BUFFED HIGH TRAFFIC AREAS TO THEIR ORIGINAL GLOSS AND HAVE REMOVED SCUFFS AND BLACK MARKS.

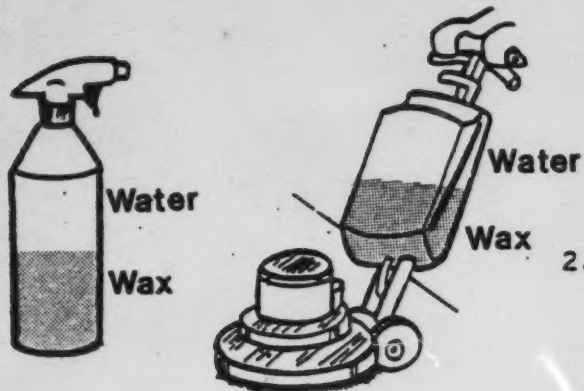
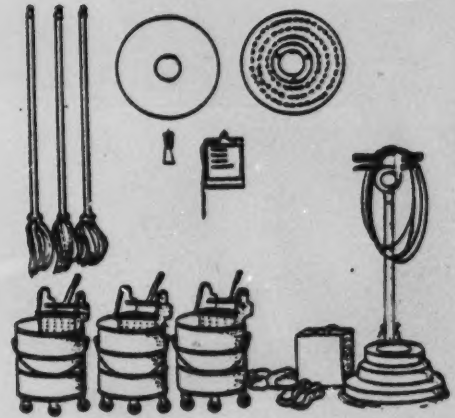
INFORMATION

IN THIS MODULE YOU WILL LEARN TO SPRAY BUFF A FLOOR WITH THE FLOOR BUFFER. SOMETIMES YOU MAY USE AN AUTOMATIC FLOOR MACHINE TO SPRAY BUFF A FLOOR.

FOR MORE INFORMATION ABOUT THE FLOOR BUFFER, ASK YOUR INSTRUCTOR.

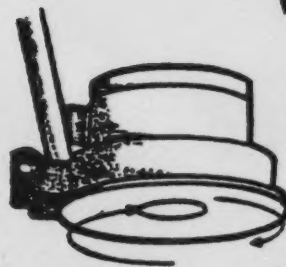
JOB STEPS

1. GET ALL THE EQUIPMENT YOU WILL NEED.
USE YOUR EQUIPMENT CHECKLIST.



2. FILL THE SPRAY BOTTLE WITH HALF
WATER AND HALF WAX.

3. MOVE EQUIPMENT TO THE WORK AREA.

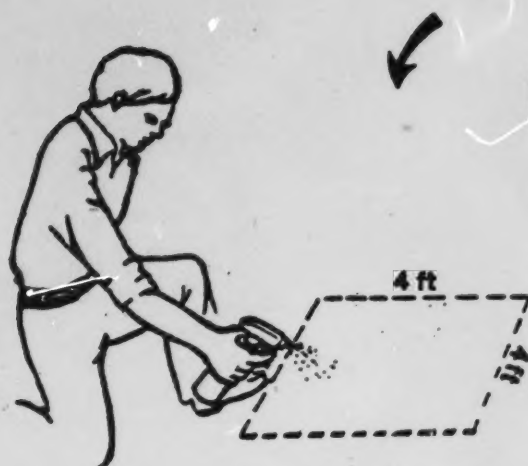
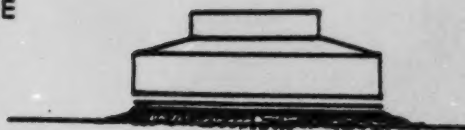


4. ATTACH THE SPRAY BUFF PAD TO THE
BRUSH AND ATTACH BOTH TO THE
FLOOR BUFFER.



JOB STEPS

5. SET THE BRUSH PRESSURE IN THE NORMAL POSITION.



6. SPRAY A FINE MIST OF THE WATER AND WAX SOLUTION ON THE AREA TO BE BUFFED. COVER AN AREA NO BIGGER THAN 4 FEET BY 4 FEET AT ONE TIME.

7. IF THE FLOOR HAS BLACK MARKS, REMOVE THEM WITH A STEEL WOOL KICK PAD. THEN BUFF OVER IT.



8. CHANGE YOUR PAD OVER FROM ONE SIDE TO THE OTHER WHEN THE BOTTOM SIDE GETS DIRTY.



JOB STEPS

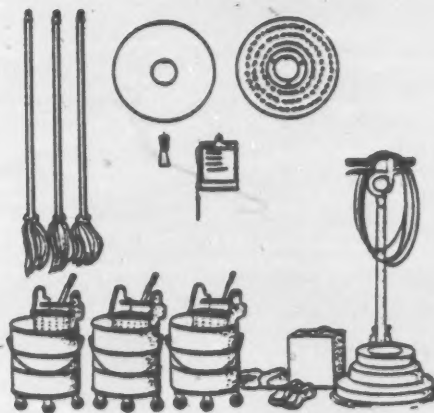
9. BUFF THE AREA DRY WITH THE FLOOR BUFFER. DO THIS UNTIL THE WHOLE FLOOR IS SPRAY BUFFED.



10. DUST MOP THE AREA.



11. RETURN ALL EQUIPMENT TO THE STORAGE AREA.

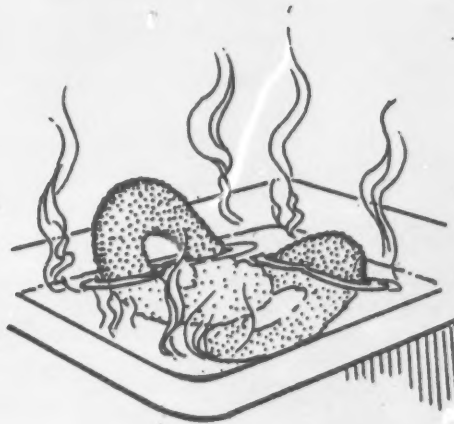


12. RINSE OUT THE SPRAY BOTTLE.



JOB STEPS

13. IF THE BUFFING PADS ARE VERY DIRTY, WASH THEM OUT IN HOT WATER. THEN HANG THEM TO DRY OVERNIGHT.





building maintenance & engineering

unit: FLOOR CARE

capital area career center

module: 2201 01 008 3 date: 12/7/76 level:

skill title: SEALING A FLOOR (RESILIENT FLOORS)

developed & written by: DWIGHT SMITH

visuals by: SANDRA STARNAMAN

SEALER - A SOLUTION USED TO PROTECT
A RESILIENT FLOOR FROM
MARKS AND WATER.

PERFORMANCE OBJECTIVE

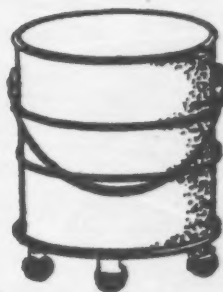
YOU ARE GOING TO LEARN:

HOW TO SEAL A RESILIENT FLOOR.

AND IN ORDER TO DO THIS YOU WILL BE GIVEN:



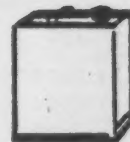
CLEAN MOP AND HANDLE



MOP BUCKET



WRINGER



FLOOR SEALER

WE WILL KNOW THAT YOU CAN DO IT WHEN:

YOU HAVE APPLIED AN EVEN COAT OF SEAL THAT CONTAINS NO STREAKS
OR BUBBLES.

INFORMATION

MATERIALS

LOCATION OF
MATERIALS

BEFORE SEALING A FLOOR, YOU MUST BE SURE
THAT THE FLOOR HAS BEEN STRIPPED AND RINSED.

IF YOU DO NOT REMEMBER HOW TO STRIP A
FLOOR, WATCH THE SLIDE TAPE FOR MODULE
2201 01 5 3

JOB STEPS

4

1. CHOOSE THE EQUIPMENT YOU WILL NEED.

2. POUR ABOUT 4 INCHES OF SEALER INTO YOUR BUCKET.



3. TAKE YOUR EQUIPMENT TO THE WORK AREA.



4. BEGIN WORK AT THE FARTHEST POINT FROM YOUR EXIT.



JOB STEPS

5. DIP YOUR MOP UP AND DOWN IN THE SEALER UNTIL YOU ARE SURE IT IS FULLY WET.



6. WRING OUT A SMALL AMOUNT OF THE SEALER.



7. APPLY LOTS OF SEALER TO THE WORK AREA. DO NOT WORK ON AN AREA LARGER THAN 25 SQUARE FEET AT ANY ONE TIME.

JOB STEPS

8. AFTER YOU HAVE APPLIED THE SEALER TO THE AREA, RETURN TO YOUR WRINGER AND SQUEEZE OUT THE MOP AS DRY AS POSSIBLE.



9. USING YOUR MOP, PICK UP THE SEALER THAT REMAINS ON THE FLOOR.



10. REPEAT STEPS 6 THROUGH 9 UNTIL YOU HAVE COVERED AN ENTIRE FLOOR.



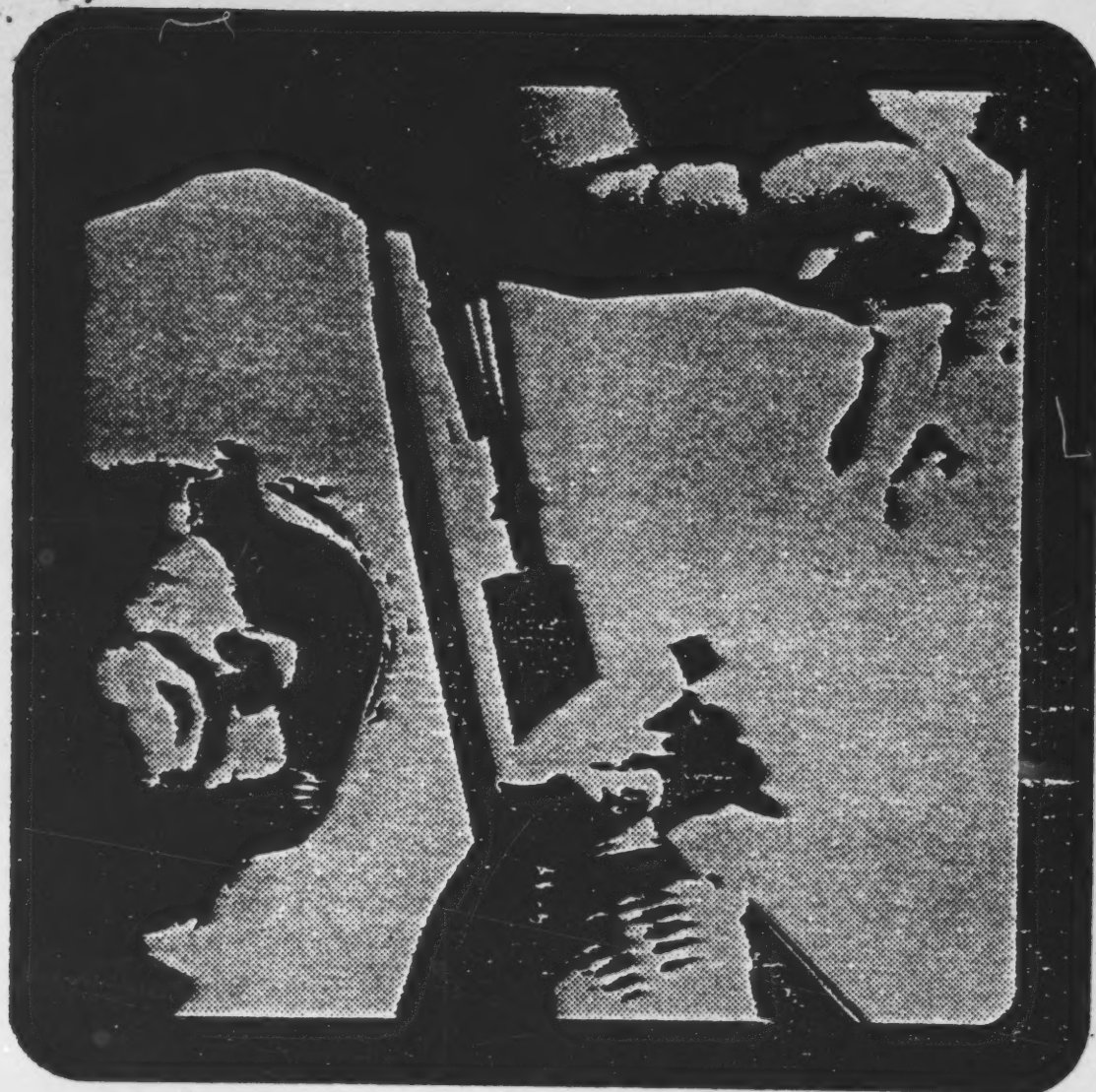
JOB STEPS

11. RETURN EQUIPMENT TO THE STORAGE AREA.



12. RINSE OUT YOUR MOP BUCKET AND MOP IN WARM WATER. AFTER RINSING YOUR MOP, SQUEEZE IT DRY AND HANG IT UP.





building maintenance & engineering

unit: FLOOR CARE

capital area career center

module: 2201 01 011 3 date: 12-07-76 level:

skill title: OPERATION AND USE OF WET VACUUM

developed & written by: LESTER SCHICK

visuals by: BILL DRAPER

WAND - A LONG HANDLE ATTACHED TO A SWEEPER HOSE.

PERFORMANCE OBJECTIVE

YOU ARE GOING TO LEARN:

TO REMOVE LIQUIDS FROM FLOORS USING A WET VACUUM.

AND IN ORDER TO DO THIS YOU WILL NEED:



WET VACUUM



WAND



FLOOR TOOL ATTACHMENT



VACUUM HOSE



BUCKET



WRINGER



MOP

WE WILL KNOW YOU CAN DO THIS WHEN:

YOU HAVE WET VACUUMED A FLOOR AND REMOVED ALL LIQUIDS.

INFORMATION

WHY DO YOU WET VACUUM A FLOOR?

BECAUSE IN CLEANING FLOORS YOU WILL OFTEN USE LIQUIDS SUCH AS WATER OR SOLUTIONS TO REMOVE ALL THE DIRT. IN ORDER TO REMOVE THESE LIQUIDS FROM THE FLOOR A WET VACUUM IS USED.

A WET VACUUM REMOVES LIQUIDS FROM FLOORS MORE QUICKLY THAN OTHER METHODS.

BE SURE YOU HAVE AN EQUIPMENT CHECKLIST FOR THE FLOOR CARE UNIT.

WHAT IS A WET VACUUM?

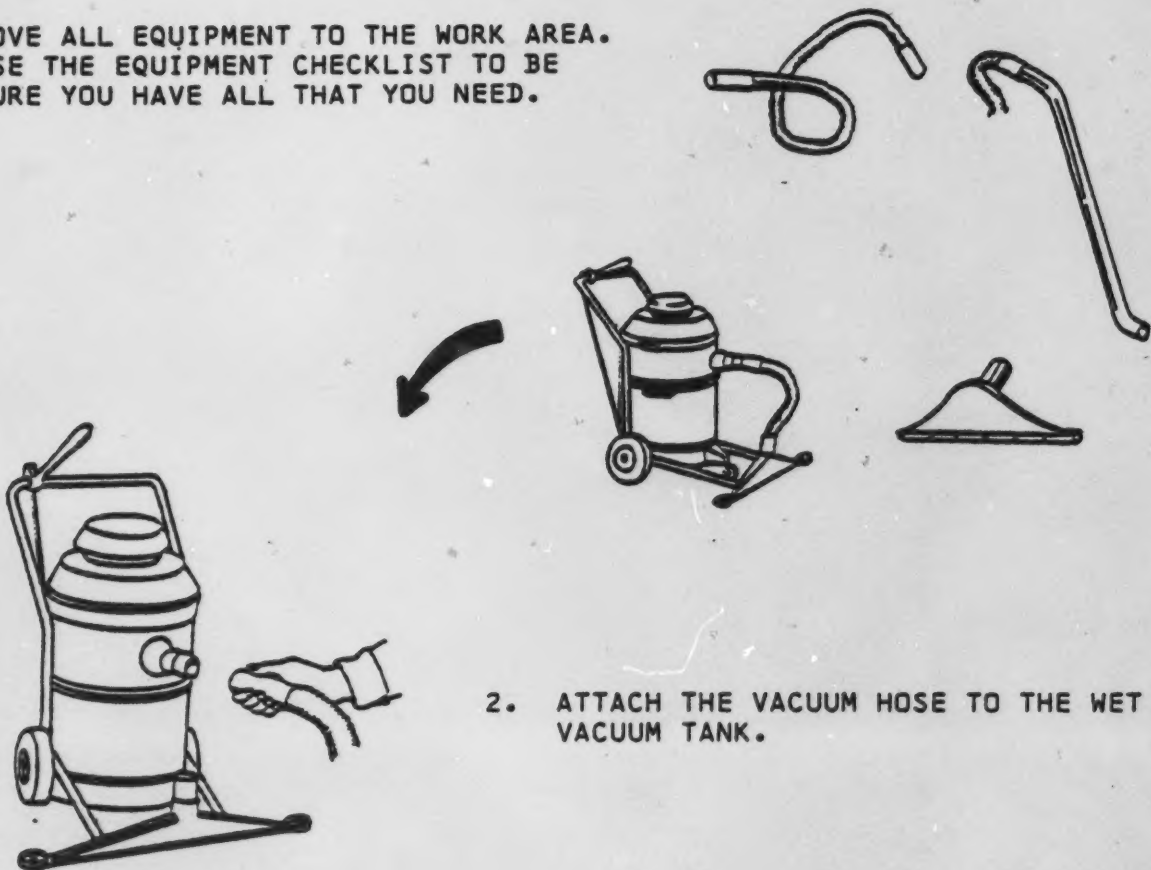
A WET VACUUM IS _____.

- A. A VERY FAST CAR.
- B. A TOOL USED FOR SPRAYING WATER.
- C. A MACHINE USED IN PAINTING A FLOOR.
- D. A MACHINE USED TO COLLECT LIQUID FROM A FLOOR.

HOPE YOU PICKED "D".

JOB STEPS

1. MOVE ALL EQUIPMENT TO THE WORK AREA.
USE THE EQUIPMENT CHECKLIST TO BE
SURE YOU HAVE ALL THAT YOU NEED.



2. ATTACH THE VACUUM HOSE TO THE WET
VACUUM TANK.

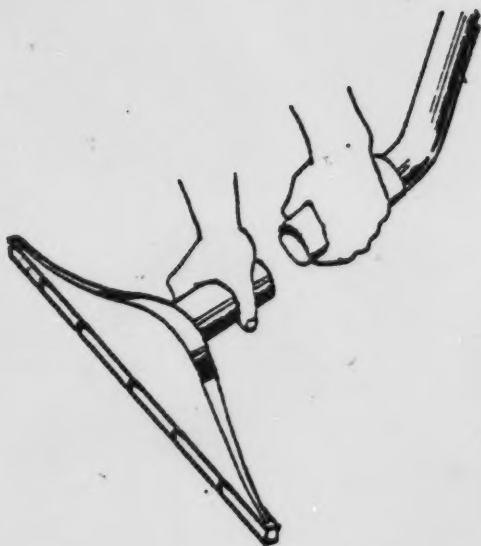
WORD GUIDE

3. ATTACH THE OTHER END OF THE HOSE TO THE HANDLE OF THE WAND.

SQUEEGEE - A RUBBER BLADE ON A WET VACUUM USED TO PULL WATER ACROSS A FLAT SURFACE.



4. ATTACH THE FLOOR SQUEEGEE TOOL TO THE OTHER END OF THE WAND.

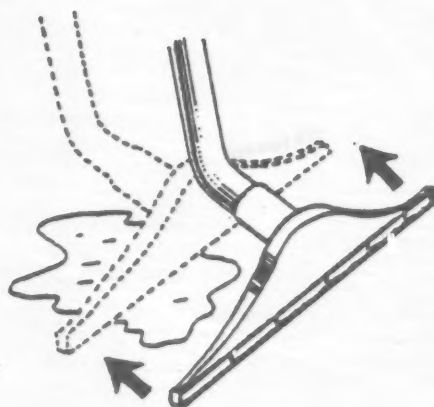
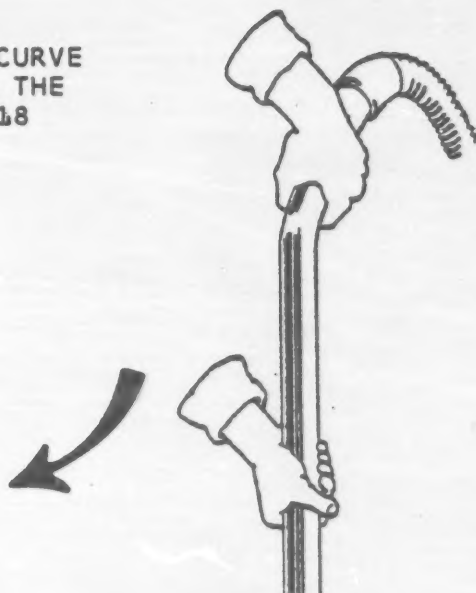


5. BEGIN AT THE FAR END OF THE WORK AREA.



SOLUTION - A MIXTURE OF LIQUIDS IN WATER.

6. PLACE ONE HAND JUST ABOVE THE CURVE AT THE TOP OF THE WAND. PLACE THE OTHER HAND ABOUT 12 INCHES TO 18 INCHES LOWER.

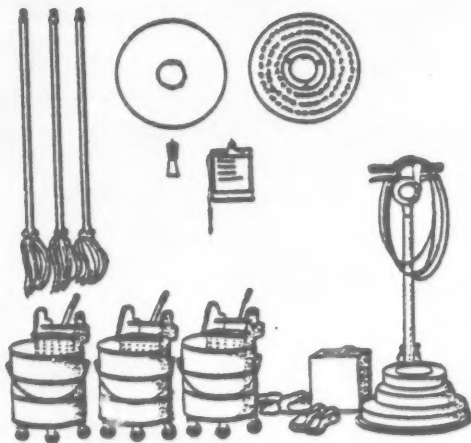


7. PLACE THE FLOOR TOOL SLIGHTLY BEYOND THE SOLUTION ON THE FLOOR. PULL THE FLOOR TOOL TOWARDS YOU.



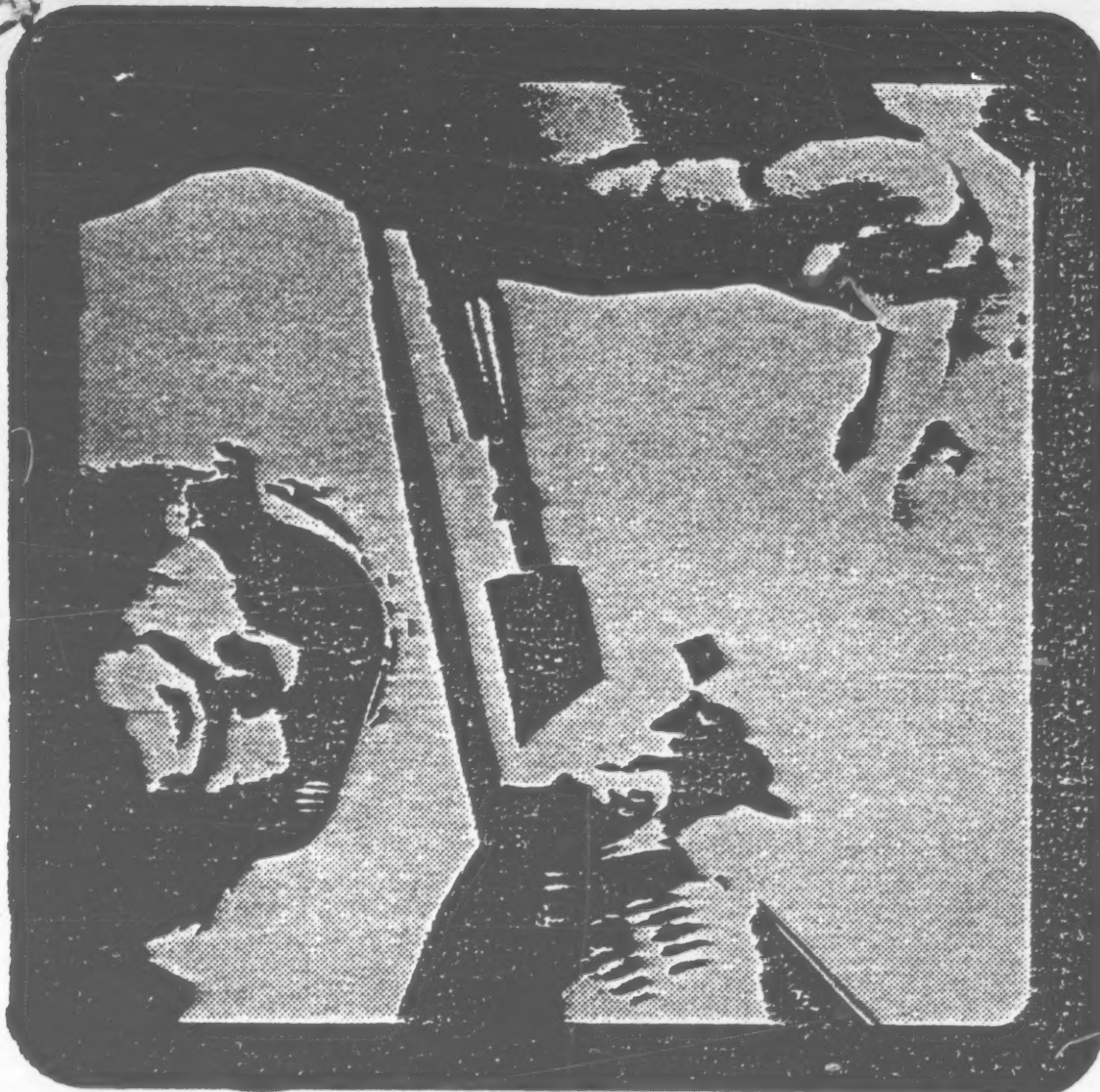
8. SLIGHTLY OVERLAP EACH STROKE.

9. WHEN YOU HAVE WET VACUUMED THE WHOLE AREA, DAMP MOP THE FLOOR TO REMOVE STREAKS. (SEE MODULE 2201 01 002 3 ON DAMP MOPPING A FLOOR.)



10. RETURN ALL MATERIALS AND TOOLS. BE SURE ALL TOOLS ARE CLEAN.

NOTE: THE SAME STEPS ARE USED IN WET VACUUMING A CARPET.



building maintenance & engineering

unit: FLOOR CARE

capital area career center

module: 2201 01 012 3 date: 12/7/76 level:

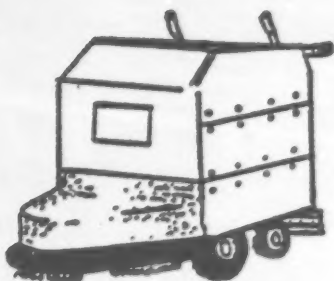
skill title: USE OF AN AUTOMATIC FLOOR MACHINE

developed & written by: LESTER SCHICK

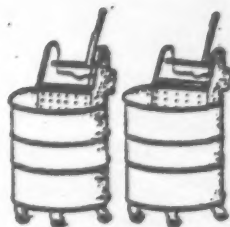
visuals by: SANDRA STARNAMAN

PERFORMANCE OBJECTIVE**YOU ARE GOING TO LEARN:**

HOW TO STRIP OR LIGHT SCRUB A FLOOR WITH AN AUTOMATIC FLOOR MACHINE.

AND IN ORDER TO DO THIS YOU WILL NEED:

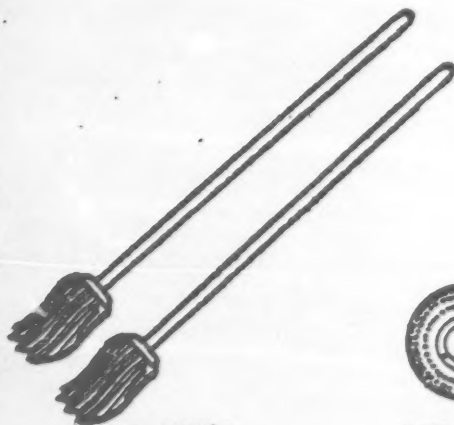
AUTOMATIC FLOOR MACHINE



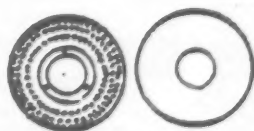
2 BUCKETS & WRINGERS



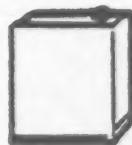
STEEL WOOL KICK PADS



2 MOP'S



STRIPPING PADS



WAX REMOVER



LIGHT SCRUB SOAP

WE WILL KNOW YOU CAN DO IT WHEN:

YOU HAVE REMOVED ALL THE OLD WAX AND BLACK MARKS FROM THE FLOOR.

INFORMATION

WHY DO YOU USE AN AUTOMATIC FLOOR MACHINE?

BECAUSE OLD WAX SLOWLY BECOMES DULL, DIRTY, AND COVERED WITH BLACK MARKS FROM SHOES. DUSTING AND MOPPING WILL NOT CLEAN THIS OLD WAX. A NEW COAT OF WAX WILL JUST MAKE THE FLOOR HARDER TO CLEAN.

AN AUTOMATIC FLOOR MACHINE MAKES THE JOB OF STRIPPING OLD WAX SIMPLER AND QUICKER THAN DOING THE JOB BY HAND. BY STRIPPING OFF THE OLD WAX, YOU CAN PREPARE A FLOOR FOR A NEW COAT OF WAX.

NOW DO:

TO LEARN ABOUT FLOOR STRIPPING, WATCH AND LISTEN TO THE SLIDE TAPE FOR MODULE 2201 01 005 3. IN MODULE 2201 01 005 3 YOU LEARNED HOW TO USE A FLOOR BUFFER TO STRIP A FLOOR. SOMETIMES YOU MIGHT USE AN AUTOMATIC FLOOR MACHINE TO STRIP A FLOOR.

BE SURE THAT YOU HAVE AN EQUIPMENT CHECKLIST FOR THE FLOOR CARE UNIT.

WHEN YOU HAVE FINISHED THE SLIDE TAPE, GO ON WITH THE MODULE BY TURNING TO THE NEXT PAGE.

WHAT IS AN AUTOMATIC FLOOR MACHINE?

AN AUTOMATIC FLOOR MACHINE IS _____.

- A) A MACHINE WHICH BUILDS NEW FLOORS.
- B) A MACHINE WHICH SCRUBS DISHES.
- C) USED TO STRIP AND CLEAN FLOORS.
- D) USED TO CLEAN BATHTUBS.

HOPE YOU PICKED "C".

JOB STEPS

1. FILL THE SOLUTION TANK 2/3 FULL WITH WARM WATER. ADD THE RIGHT AMOUNT OF WAX REMOVER TO THE TANK. FOLLOW THE DIRECTIONS ON THE TANK. YOUR INSTRUCTOR WILL HELP YOU.



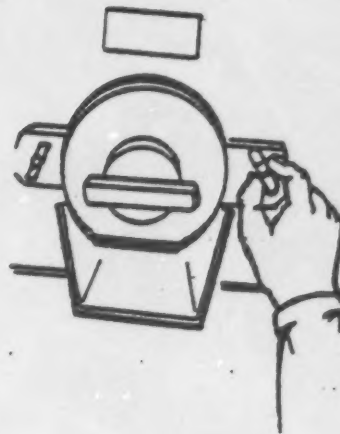
2. PLACE THE STRIPPING PADS ON THE BRUSHES. ATTACH THE BRUSHES AND PADS TO THE MACHINE.

WORD GUIDE

SQUEEGEE - A RUBBER BLADE USED TO PULL WATER ACROSS A SMOOTH SURFACE.

JOB STEPS

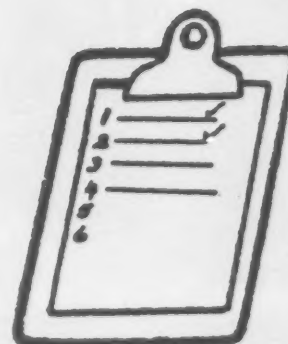
3. MAKE SURE THE PICK-UP TANK IS EMPTY. THE SQUEEGEE BLADE MUST BE CLEAN. ALL DRAIN CONNECTIONS MUST BE TIGHT.



4. FILL TWO BUCKETS HALF FULL WITH COLD WATER. ADD WRINGERS ON BUCKETS.



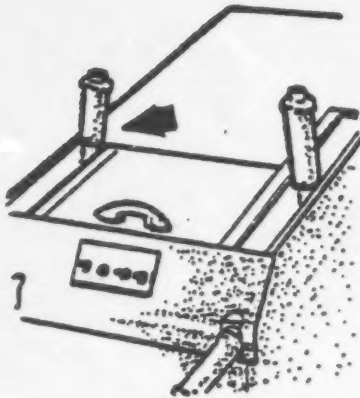
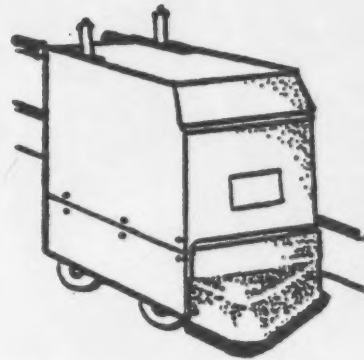
5. MOVE YOUR EQUIPMENT TO THE WORK AREA. USE YOUR CHECKLIST TO BE SURE YOU HAVE ALL THE EQUIPMENT YOU WILL NEED.



JOB STEPS

6

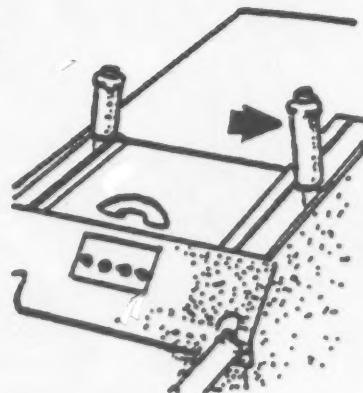
6. AN AUTOMATIC FLOOR MACHINE IS USED MOSTLY FOR OPEN SPACES. START AT THE OUTSIDE OF THE SPACE TO BE DONE. WORK AROUND THE ROOM TOWARDS THE CENTER.



7. SET THE SOLUTION CONTROL LEVER TO ON.

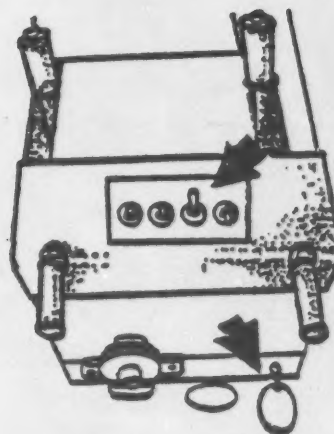


8. SET THE BRUSH PRESSURE TO THE RIGHT AMOUNT. MOST TIMES, AT ABOUT A NORMAL PRESSURE.



JOB STEPS

9. LOWER THE SQUEEGEE BLADE AND TURN THE VACUUM MOTOR ON.



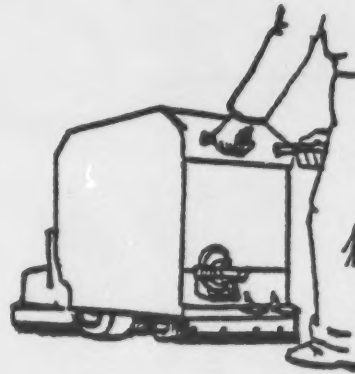
10. LOWER THE BRUSHES AND TURN ON THE MACHINE. BEGIN MOVING THE MACHINE AT THE SAME TIME AS YOU TURN ON THE MACHINE.



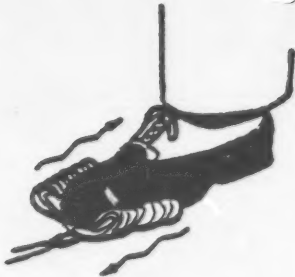
 * CAUTION - NEVER LEAVE THE MACHINE IN THE SAME *
 * PLACE WITH THE BRUSHES RUNNING. *
 * *****

JOB STEPS

11. RUN THE AUTOMATIC FLOOR MACHINE OVER THE ENTIRE AREA TO BE DONE.



12. USE THE STEEL WOOL KICK PAD TO STRIP THE EDGES AND CORNERS.

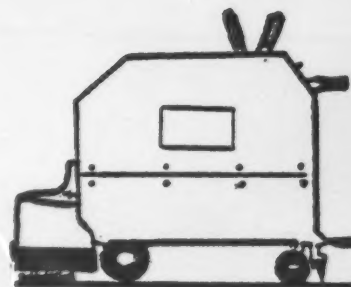


13. MOP THE WHOLE SPACE TO PICK UP WATER.
(SEE MODULE 2201 01 003 3 ON WET MOPPING.)



JOB STEPS

14. SOME FLOORS ARE EXTRA DIRTY. YOU MAY RUN THE AUTOMATIC FLOOR MACHINE WITHOUT THE SQUEEGEE AND VACUUM THE FIRST TIME OVER THE FLOOR. GO OVER THE FLOOR A SECOND TIME WITH SQUEEGEE AND VACUUM AND BRUSHES. DO NOT ADD EXTRA WATER TO THE FLOOR.



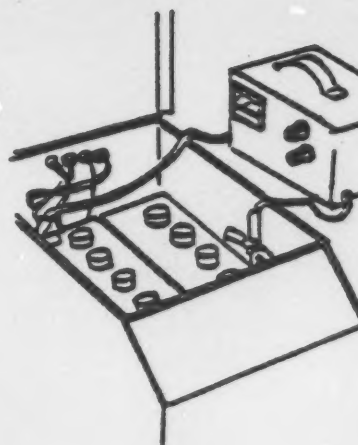
15. LIGHT SCRUBBING - THE SAME WAY AS IN STRIPPING EXCEPT:
- A. USE A LIGHT SCRUB PAD.
 - B. USE COLD WATER WITH A LIGHT SCRUB SOAP.
 - C. USE LESS BRUSH PRESSURE.
 - D. GO OVER THE FLOOR ONLY ONCE WITH THE AUTOMATIC FLOOR MACHINE.
16. RETURN ALL MATERIALS AND TOOLS. BE SURE ALL TOOLS ARE CLEAN.

JOB STEPS

10

17. CARE OF AN AUTOMATIC FLOOR MACHINE:

- A. EMPTY SOLUTION AND PICK UP TANK AND HOSE AFTER EACH USE.
- B. FILL THE BATTERIES TO THE RIGHT LEVEL.
- C. OIL AND GREASE THE MACHINE. FOLLOW THE OPERATING MANUAL ON THIS. ASK YOUR TEACHER FOR HELP.
- D. DO NOT LEAVE THE SQUEEGEE DOWN WHEN THE AUTOMATIC FLOOR MACHINE IS NOT IN USE.
- E. CLEAN THE BATTERY CABLES.
- F. REMOVE AND CLEAN THE VACUUM MOTOR FILTER. YOUR TEACHER CAN HELP YOU WITH THIS STEP.
- G. PLUG IN THE BATTERY CHARGER AFTER EACH DAY'S USE.





building maintenance & engineering

unit: FLOOR CARE

capital area career center

module: 2201 01 013 3 date: 12/7/76 level:

skill title: FLOOR MACHINE (BUFF FLOOR)

developed & written by: LESTER SCHICK

visuals by: MARIE GOUGEON

BUFF - TO POLISH OR SHINE.

PERFORMANCE OBJECTIVE

YOU ARE GOING TO LEARN:

HOW TO OPERATE A FLOOR MACHINE AND BUFF FLOORS.

AND IN ORDER TO DO THIS YOU WILL NEED:

FLOOR MACHINE

PROPER BRUSH AND WHITE BUFFING PAD

WE WILL KNOW YOU CAN DO THIS WHEN:

YOU HAVE BUFFED A FLOOR SO THAT IT HAS AN EVEN SHINE.

INFORMATIONWHY DO YOU BUFF A FLOOR?

THE WAX SHINE ON A FLOOR WILL SLOWLY BECOME DULL FROM PEOPLE WALKING ACROSS THE FLOOR. THE WAX SHINE CAN BE BROUGHT BACK BY BUFFING. BY BUFFING, YOU WILL NOT HAVE TO STRIP A FLOOR TO GIVE THE FLOOR A SHINE.

NOW DO:

YOU WILL BE TOLD HOW TO BUFF A FLOOR

BE SURE YOU HAVE AN EQUIPMENT CHECKLIST FOR THE FLOOR CARE UNIT.

CONTINUE WITH THIS MODULE BY TURNING TO THE NEXT PAGE.

WHAT IS FLOOR BUFFING?

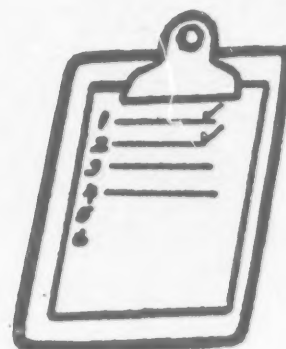
4

A PERSON WHO BUFFS A FLOOR_____.

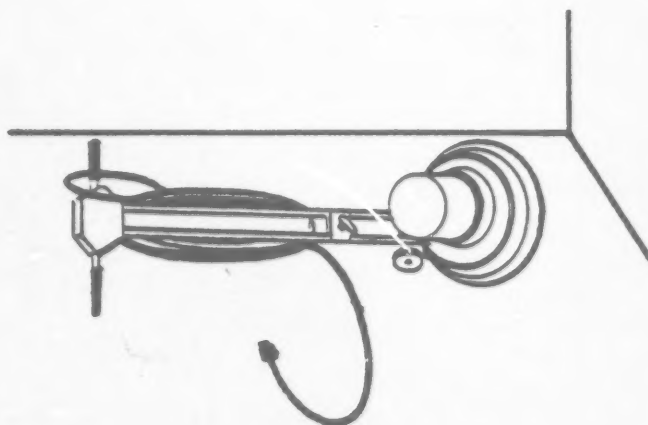
- A) STRIPS WAX FROM THE FLOOR.
- B) SHINES UP THE DULL WAX ALREADY ON THE FLOOR.
- C) TRIES TO HIDE UNDER THE FLOOR.
- D) WALKS ACROSS THE FLOOR.

HOPE YOU CHOSE "B".JOB STEPS

1. TAKE YOUR EQUIPMENT TO THE WORK AREA.
USE YOUR CHECKLIST,



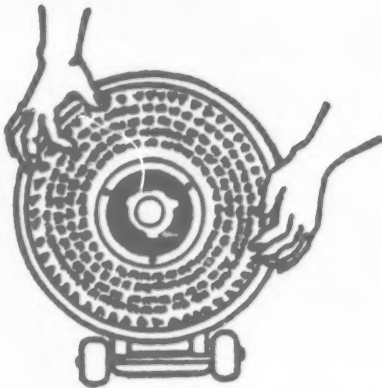
2. PLACE BOTH HANDS ON THE HANDLE. TILT THE MACHINE SO THAT THE HANDLE RESTS ON THE FLOOR.



JOB STEPS

5

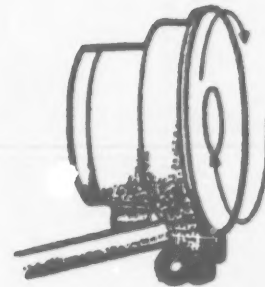
3. ATTACH THE BUFFING PAD TO THE BRUSH.



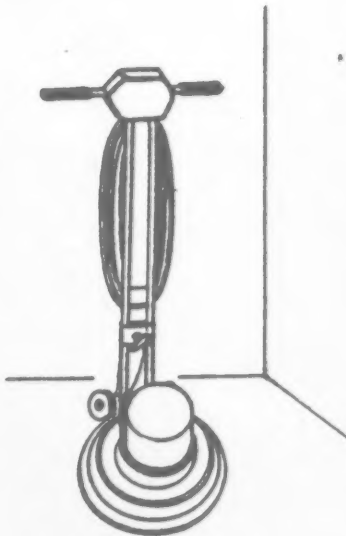
4. ATTACH THE BRUSH TO THE FLOOR MACHINE BY PLACING THE BRUSH PLATE ON THE DRUM. THE SLOTS IN THE BRUSH PLATE WILL MATCH THE SLOTS ON THE DRUM OF THE MACHINE.



5. TURN THE BRUSH UNTIL IT IS TIGHT.



6. STAND THE MACHINE UP.



JOB STEPS

7. ADJUST THE HANDLE TO ABOUT WAIST LEVEL. LOCK THE HANDLE IN PLACE.



8. PLUG THE MACHINE IN.



9. PLACE BOTH HANDS ON THE MACHINE HANDLE. BE SURE YOU HAVE A FIRM HOLD ON THE HANDLE.



JOB STEPS

7

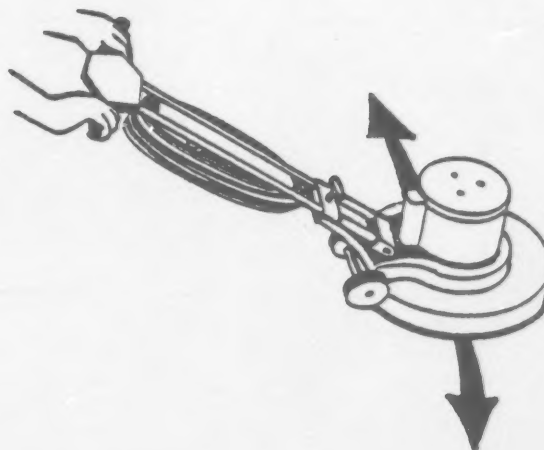
10. BY LIGHTLY LIFTING ON THE HANDLE, THE MACHINE WILL MOVE TO YOUR RIGHT.



11. LIGHTLY PUSHING DOWN ON THE HANDLE WILL MOVE THE MACHINE TO THE LEFT.



12. PRACTICE MOVING THE MACHINE FROM SIDE TO SIDE UNTIL YOU CAN DO IT WITH EASE.



JOB STEPS

13. MOVE THE MACHINE FROM SIDE TO SIDE UNTIL THE WHOLE FLOOR HAS BEEN BUFFED.
14. RETURN ALL EQUIPMENT. BE SURE ALL EQUIPMENT IS CLEAN.



building maintenance & engineering

unit: FLOOR CARE

capital area career center

module: 2201 01 014 3 date: 12/12/76 level:

skill title: SWEEPING AND MOPPING STAIRS

developed & written by: LESTER SCHICK

visuals by: JACK BERGERON

LITTER - TRASH, WASTE PAPERPERFORMANCE OBJECTIVEYOU ARE GOING TO LEARN:

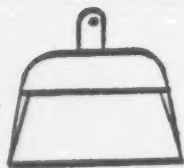
HOW TO SWEEP AND MOP STAIRS.

AND IN ORDER TO DO THIS YOU WILL NEED:

PUSH BROOM



MOP

BUCKET AND
WRINGER

DUSTPAN



BENCH BRUSH



WIPING CLOTH

WE WILL KNOW YOU CAN DO IT WHEN:

NO LITTER, DIRT OR STAINS CAN BE SEEN ON THE STAIRWAY YOU HAVE CLEANED.

INFORMATION

WHY DO YOU SWEEP AND MOP STAIRS?

PEOPLE USING STAIRWAYS CAUSE DIRT AND LITTER.
SWEEPING AND MOPPING REMOVES THIS LITTER.

LITTER ON STAIRS CAN BE VERY DANGEROUS.
PEOPLE COULD SLIP OR TRIP ON THE LITTER.

BE SURE YOU HAVE AN EQUIPMENT CHECKLIST FOR THE FLOOR CARE
UNIT.

GO ON WITH THIS MODULE BY TURNING THE PAGE.

WHY IS LITTER DANGEROUS ON STAIRS?

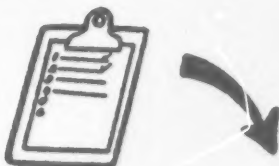
4

LITTER ON STAIRS CAN CAUSE PEOPLE TO _____.

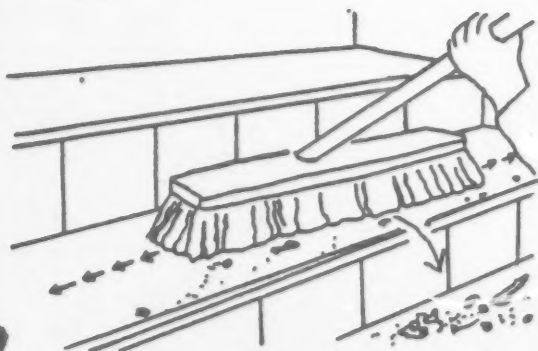
- A. GET SICK
- B. TRIP AND FALL
- C. SAVE MONEY
- D. FLY

HOPE YOU PICKED "B".JOB STEPS

1. PICK UP THE EQUIPMENT YOU WILL NEED.
USE YOUR CHECKLIST.



2. GO TO THE WORK AREA.

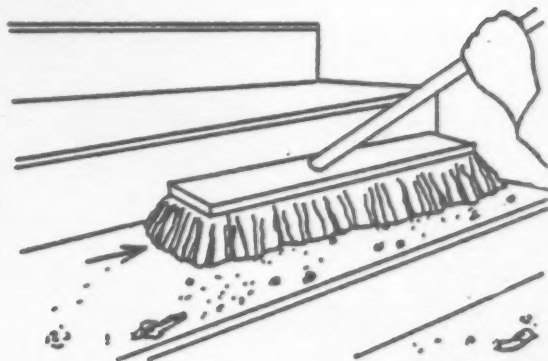


3. START AT THE TOP OF THE STAIRS WITH
THE PUSH BROOM. SWEEP TOWARDS THE
BOTTOM OF THE STAIRS.

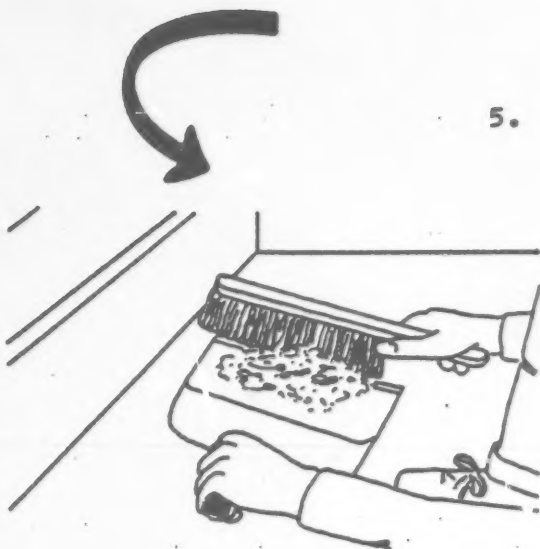
JOB STEPS

5

4. BE SURE TO SWEEP THE CORNERS OF EACH STEP.



5. SWEEP ALL THE STEPS. AT THE BOTTOM, USE THE BENCH BRUSH TO SWEEP THE DIRT INTO THE DUSTPAN.



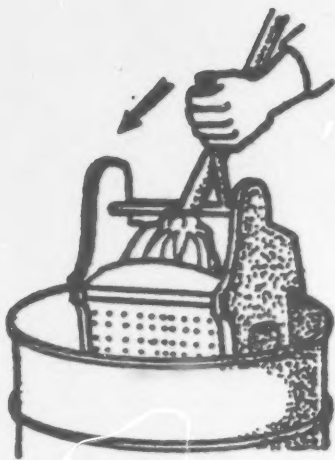
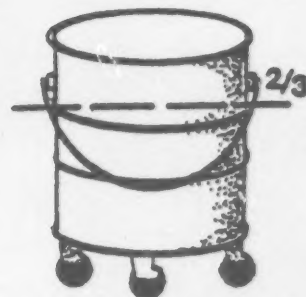
6. RETURN TO THE TOP OF THE STAIRS.



JOB STEPS

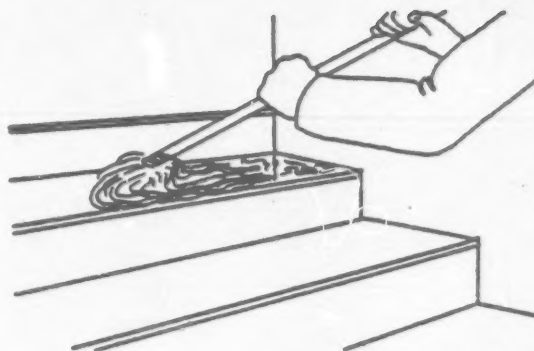
6

7. FILL A BUCKET 2/3 FULL WITH COLD WATER.

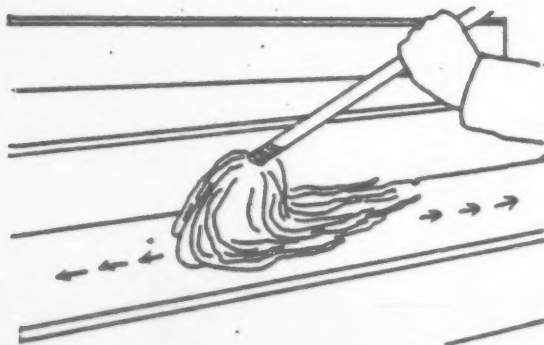
COLD

8. DIP A CLEAN MOP INTO THE WATER.
WRING OUT THE MOP.

9. WALK TO THE TOP OF THE STAIRS.
MOVE BACKWARDS DOWN THE STAIRS.
MOP EACH STEP IN FRONT OF YOU.



10. USE A SIDE TO SIDE MOTION ON
EACH STEP.

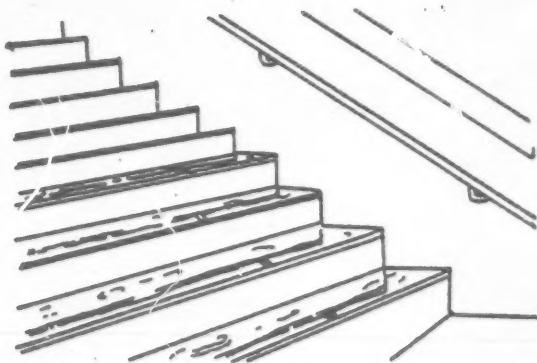
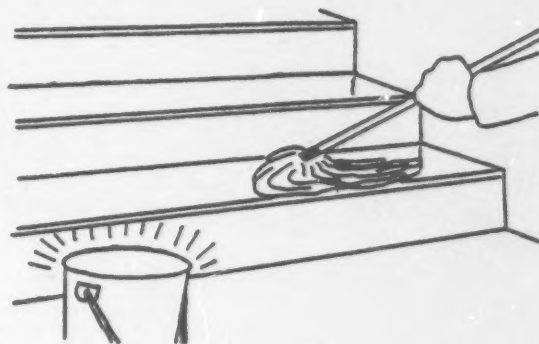


JOB STEPS

7

11. LEAVE THE BUCKET OF WATER AT THE BOTTOM OF EACH FLIGHT OF STAIRS.

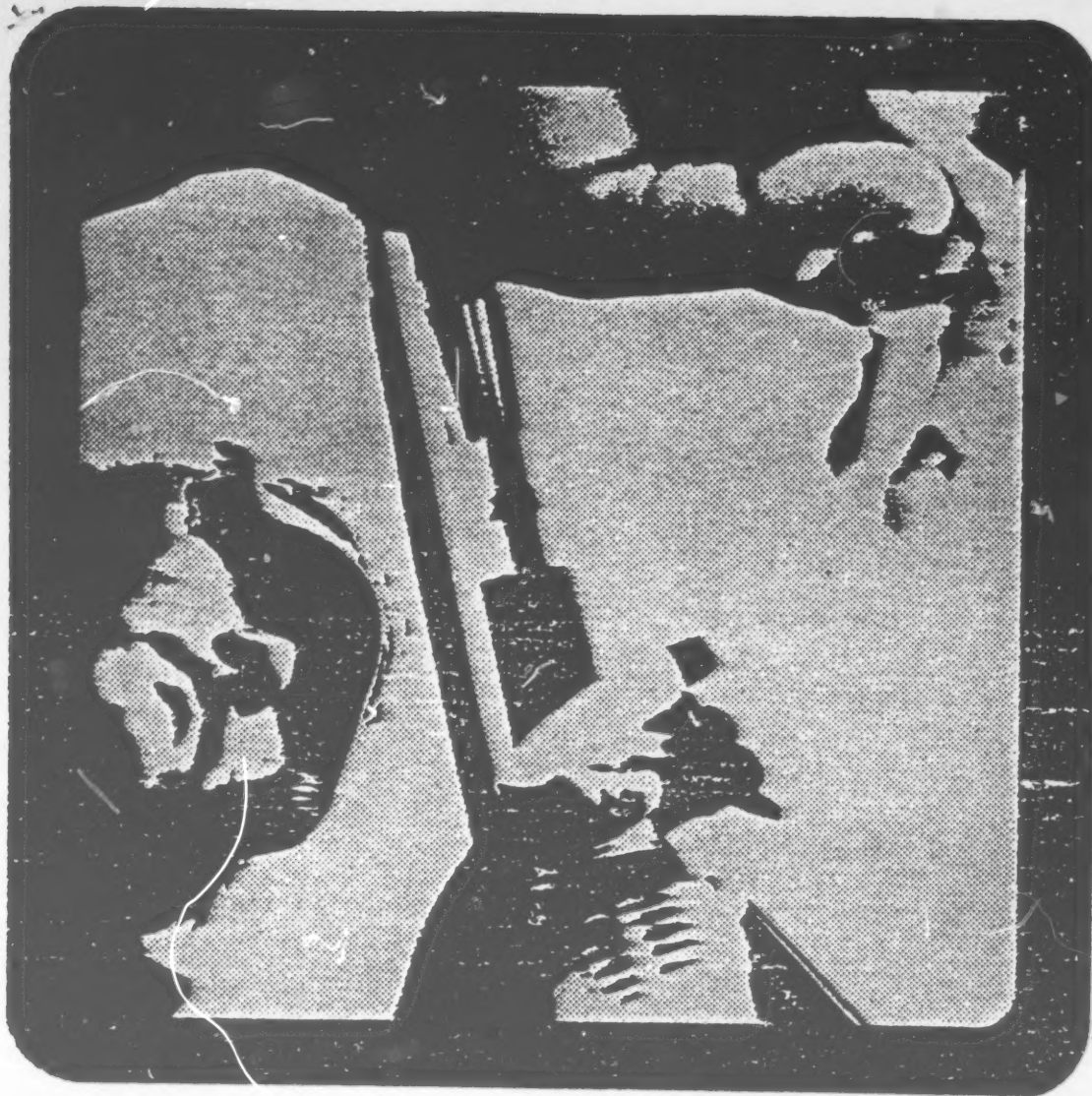
* CAUTION: BE SURE IT IS *
* OUT OF YOUR WAY. *



12. REMEMBER: TRY NOT TO WALK ON THE STAIRS UNTIL THEY ARE DRY.

13. RETURN ALL EQUIPMENT. BE SURE ALL TOOLS ARE CLEAN.





building maintenance & engineering

unit: FLOOR CARE

capital area career center

module: 2201 01 015 3 date: 12-12-76 level: 1

skill title: REVIEW AND PRACTICE

developed & written by: LESTER SCHICK

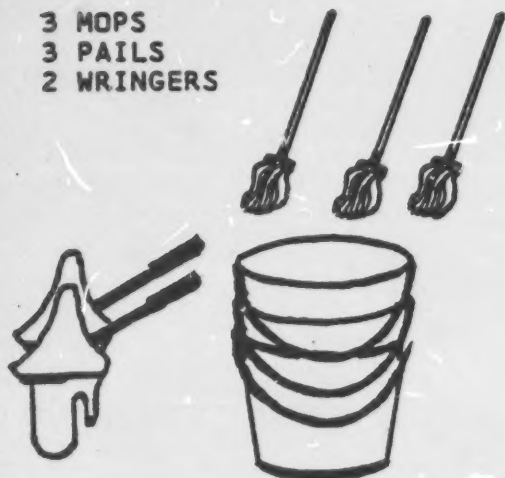
visuals by: SHERRI BAKER

PERFORMANCE OBJECTIVE**YOU ARE GOING TO LEARN:**

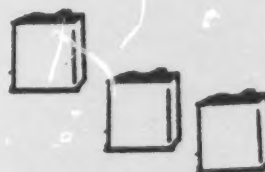
TO CLEAN, SEAL, WAX AND BUFF A RESILIENT FLOOR.

AND IN ORDER TO DO THIS YOU WILL NEED:

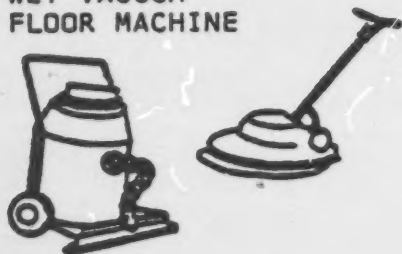
3 MOPS
3 PAILS
2 WRINGERS



STRIPPING SOLUTION
SEALER
WAX
DUST PAN AND BENCH BRUSH



WET VACUUM
FLOOR MACHINE



SCRUBBING PAD
WIRE BRUSH
BUFFER PAD

**WE WILL KNOW YOU CAN DO IT WHEN:**

1. THE FLOOR IS FREE OF ALL DIRT AND HAS A HIGH SHINE.
2. YOU FOLLOW THE FOUR STEPS FOR PUTTING ON A HIGH SHINE: STRIP, SEAL, WAX AND BUFF.

WHAT IS A RESILIENT FLOOR?

A RESILIENT FLOOR IS A FLOOR MADE OF _____.

- A. BRICKS
- B. OLD WAX, DIRT AND BLACK MARKS
- C. BANANA PEELS
- D. "SOFT" TILES, SUCH AS ASPHALT, VINYL OR VINYL ASBESTOS.

HOPE YOU PICKED "D".

INFORMATION

WHY DO YOU CLEAN, SEAL, WAX AND BUFF A RESILIENT FLOOR?

A TILE FLOOR BECOMES DIRTY, DULL, AND COVERED WITH BLACK MARKS. IN ORDER TO GET THE FLOOR CLEAN AND PUT A NEW COAT OF WAX DOWN, YOU HAVE TO:

- 1) STRIP OFF OLD WAX.
- 2) SEAL THE FLOOR.
- 3) WAX THE FLOOR.
- 4) BUFF THE FLOOR.

THESE STEPS RESULT IN A CLEAN, HIGH POLISHED FLOOR.

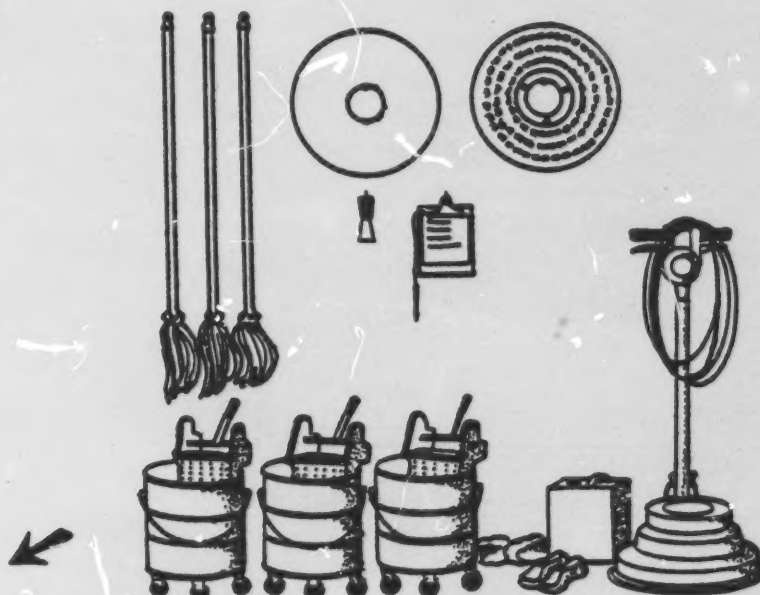
TO REFRESH YOUR MEMORY, REFER BACK TO THE FOLLOWING MODULES:

- 1) 2201 01 005 3 - STRIPPING A RESILIENT FLOOR.
- 2) 2201 01 008 3 - SEALING A FLOOR
- 3) 2201 01 006 3 - WAXING FLOORS

THEN GET AN EQUIPMENT CHECKLIST FOR THE FLOOR CARE UNIT. STUDY THE JOB STEPS.

JOB STEPS

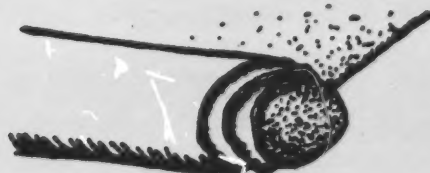
1. PICK UP THE EQUIPMENT YOU WILL NEED.
USE YOUR CHECKLIST.



2. REMOVE ALL FURNITURE AND OBJECTS FROM
THE ROOM.



3. IF CARPETS CANNOT BE REMOVED FOLD
BACK THE EDGES.

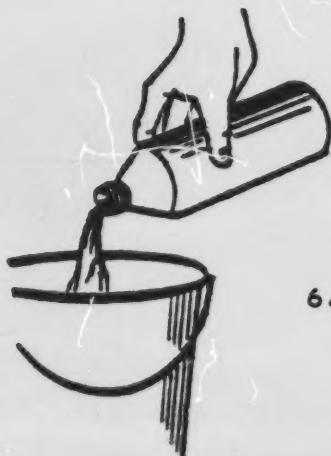


JOB STEPS

4. DUST MOP THE ROOM. LEAVE NO DIRT TO BE SEEN.



5. PICK UP THE DIRT WITH A BENCH BRUSH AND DUSTPAN. PUT THE DIRT IN A TRASH CONTAINER.



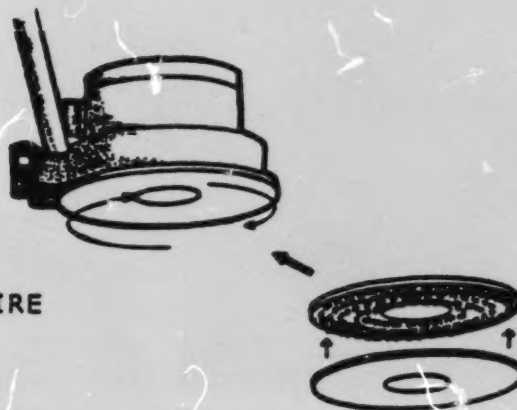
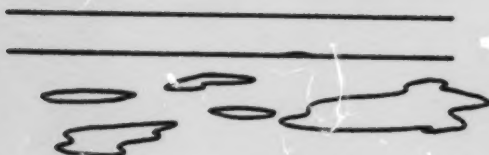
6. ADD STRIPPING SOLUTION TO BUCKET OF WARM WATER. ASK YOUR INSTRUCTOR HOW MUCH TO ADD.

JOB STEPS

7. APPLY MIXED SOLUTION TO THE FLOOR. BEGIN WITH AN AREA ABOUT 10 FEET BY 10 FEET. USE A VERY WET MOP.



8. LET THE SOLUTION STAY ON THE FLOOR FOR 3 TO 4 MINUTES.



9. PUT THE GRAY SCRUB PAD ON THE WIRE BRUSH.

10. PUT THE WIRE BRUSH ON THE FLOOR MACHINE.

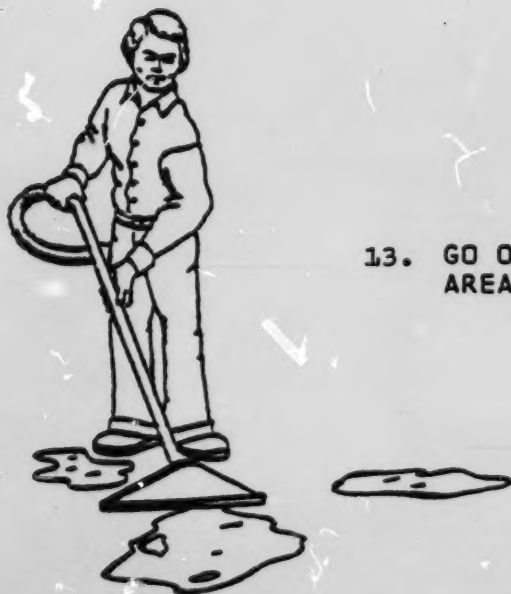
JOB STEPS

11. RUN THE FLOOR MACHINE BACK AND FORTH. OVERLAP EACH STROKE SO YOU WON'T MISS ANY PLACES.



12. NEVER LET THE SOLUTION DRY ON THE FLOOR. PICK UP THE SOLUTION FROM THE FLOOR WITH THE WET VACUUM.

NOTE: 10 FEET IS ABOUT 5 NORMAL STEPS.



13. GO OVER THE WHOLE 10 FOOT BY 10 FOOT AREA WITH THE FLOOR MACHINE.

JOB STEPS

14. DO STEPS 7 THROUGH 13 ON ANOTHER 10 FOOT BY 10 FOOT AREA. DO THIS UNTIL THE ENTIRE FLOOR IS DONE.



15. WET MOP THE FLOOR. USE A MOP AND CLEAN WATER.



16. USE THE WET VACUUM. PICK UP THE WATER FROM THE FLOOR.

JOB STEPS

17. DAMP MOP THE ENTIRE FLOOR. USE A CLEAN MOP AND CLEAN WATER.



18. LET THE FLOOR DRY.



19. RUB YOUR FINGERS ON THE DRY FLOOR. IF THERE IS A WHITE DUST ON YOUR FINGERS, DAMP MOP AGAIN WITH CLEAN WATER.



20. WHEN THE FLOOR IS ALL DRY, PUT SEALER IN A CLEAN BUCKET. PUT A WRINGER ON THE BUCKET.



JOB STEPSWORD GUIDE

SOAK - TO MAKE ALL WET.

21. DIP A CLEAN MOP INTO THE BUCKET. SOAK THE MOP. WRING UNTIL IT DRIPS A LITTLE.



22. MOP AN 8 FOOT BY 10 FOOT AREA. MOVE THE MOP IN A FIGURE 8 MOTION. KEEP YOUR MOP FULL OF SEALER.

23. BEFORE THE FLOOR DRIES, SQUEEZE YOUR MOP VERY DRY. THEN MOP THE FLOOR WITH YOUR DRY MOP. PICK UP ALL EXTRA SEALER WITH THE MOP.



JOB STEPS

24. ALLOW THE SEALER TO DRY OVERNIGHT.



25. DAMP MOP THE FLOOR THE NEXT DAY TO PICK UP ANY DUST.



26. POUR 4 INCHES OF WAX IN A CLEAN BUCKET.

4"



27. DIP A CLEAN MOP INTO THE WAX. WRING OUT THE MOP UNTIL IT DOES NOT DRIP.



JOB STEPS

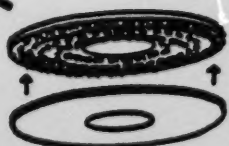
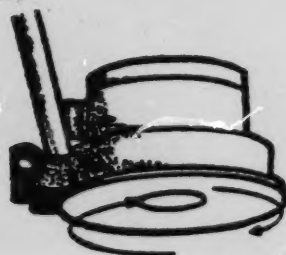
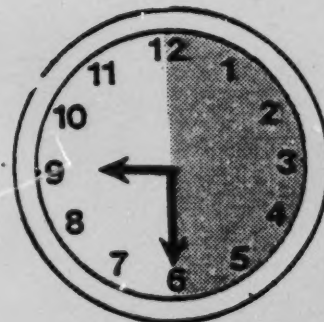
28. PUT THE WAX ON AN 8 FOOT BY 10 FOOT AREA OF THE FLOOR. MOVE THE MOP IN A FIGURE 8 MOTION.



29. REPEAT STEPS 27 AND 28 UNTIL THE WHOLE FLOOR IS DONE.



30. THE WAX WILL DRY IN 30 MINUTES. THEN APPLY A SECOND COAT OF WAX.



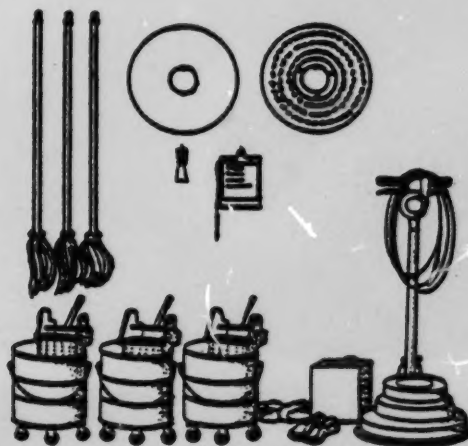
31. LET THE SECOND COAT DRY. ATTACH THE BUFFER PAD TO THE WIRE BRUSH. ATTACH THEM TO THE FLOOR BUFFER.

JOB STEPS

32. BUFF THE ENTIRE FLOOR.



33. RETURN ALL EQUIPMENT AND MATERIALS.
BE SURE THEY ARE CLEAN.





building maintenance & engineering

unit: FLOOR CARE

capital area career center

module: 2201 01 16 3 date: 12-12-76 level: 1

skill title: CARE OF HARD SURFACED FLOORS

developed & written by: LESTER SCHICK

visuals by: SANDRA STARNAMAN

WORD GUIDEPOLISHED - WITH A WAXED SHINE.PERFORMANCE OBJECTIVEYOU ARE GOING TO LEARN:

HOW TO GIVE HARD SURFACED FLOORS THE DAILY CARE NEEDED FOR ONE WEEK.

AND IN ORDER TO DO THIS YOU WILL NEED:

DUST MOP



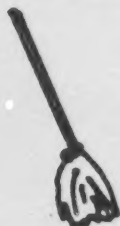
BROOM



BENCH BRUSH



DUST PAN



MOP



2 MOP PAILS



MOP WRINGER



FLOOR MACHINE

WAX SPRAY BOTTLE

WE WILL KNOW YOU CAN DO IT WHEN:

YOU HAVE KEPT A FLOOR POLISHED AND CLEAN FOR ONE WEEK.

WHAT MUST BE DONE TO CARE FOR A HARD SURFACED FLOOR?

HARD SURFACED FLOORS SHOULD BE _____.

- A. CLEANED AND POLISHED.
- B. CLEANED AND STRIPPED.
- C. POLISHED AND SCRATCHED.
- D. RUBBED WITH BUTTER.

HOPE YOU PICKED "A".

INFORMATION

WHY DO YOU CLEAN AND POLISH HARD FLOORS?

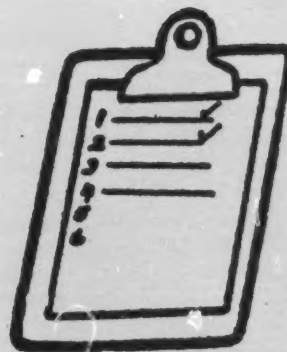
BECAUSE FLOORS GET DIRTY WITH USE. THE POLISH ON THE FLOOR BECOMES DULL WHEN PEOPLE WALK ACROSS THE FLOOR. IF YOU DUST MOP DAILY, AND BUFF WHEN THE FLOOR BECOMES DULL, YOU WILL KEEP THE FLOOR NEAT.

IN ORDER TO DO THIS MODULE, YOU MUST REVIEW MODULES:

- 1. DUST MOPPING (2201 01001 3)
- 2. DAMP MOPPING (2201 01002 3)
- 3. SPRAY BUFFING (2201 01007 3)
- 4. FLOOR MACHINE (2201 01013 3)

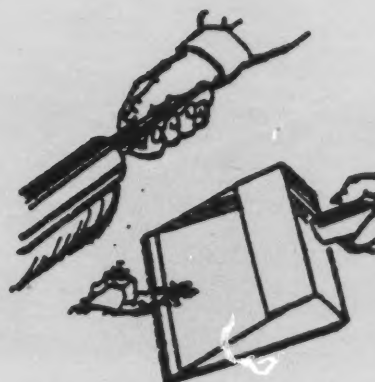
BE SURE YOU HAVE AN EQUIPMENT CHECKLIST FOR THE FLOOR CARE UNIT.

1. PICK UP THE EQUIPMENT YOU WILL NEED.
USE YOUR CHECKLIST.



2. DUST MOP THE FLOOR.

3. PICK UP DIRT WITH THE DUST PAN AND
BENCH BRUSH.



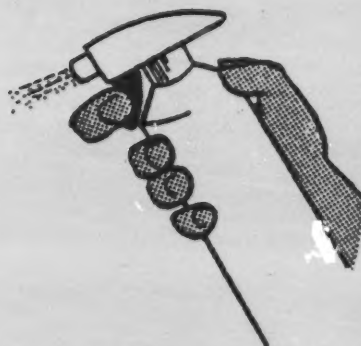
4. DAMP MOP THE FLOOR WITH CLEAN WATER AND MOP.



5. LET THE FLOOR DRY.



6. SPRAY WAX ON DULL SPOTS.

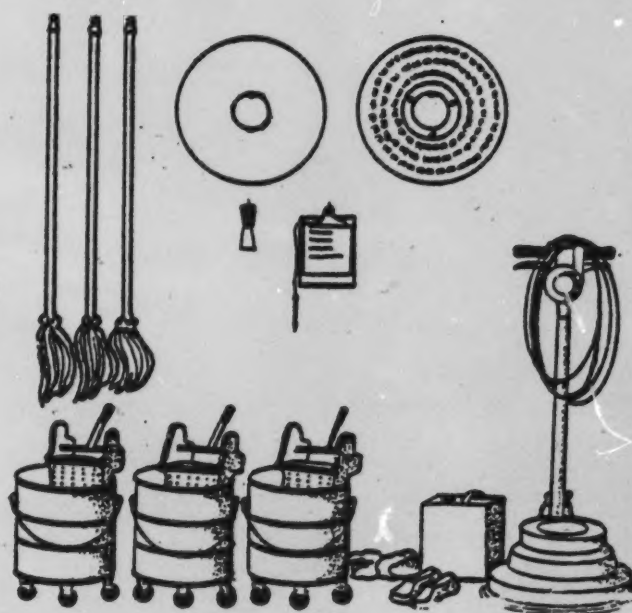


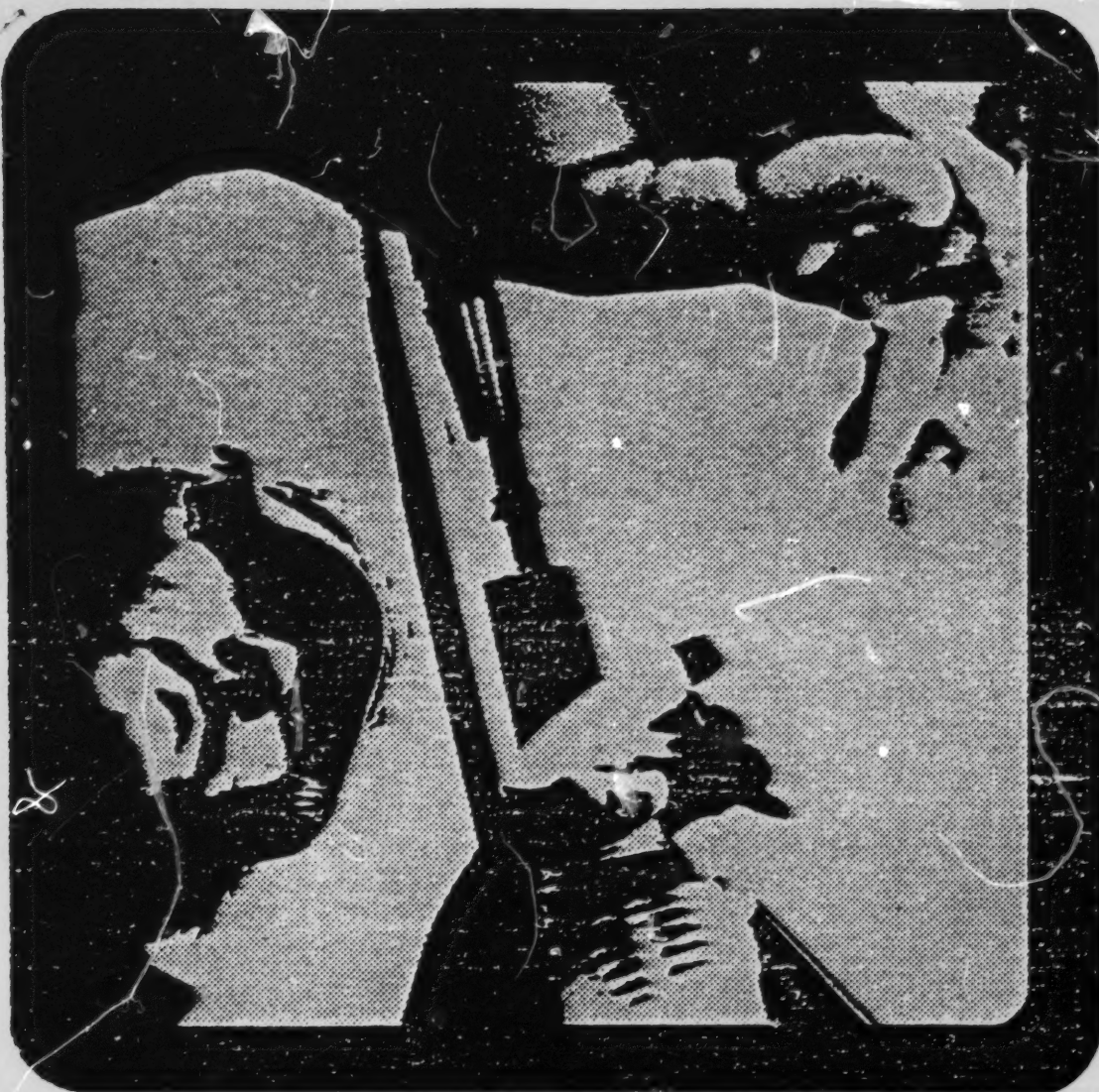
7. BUFF ALL FLOORS WITH EITHER AUTOMATIC FLOOR MACHINE OR FLOOR BUFFER.



8. RETURN ALL YOUR EQUIPMENT.

9. BE SURE YOUR EQUIPMENT IS CLEAN.





building maintenance & engineering

unit: FLOOR CARE

capital area career center

module: 2201 01 017 3 date: 12-12-78 level:

skill title: HOW TO TREAT A DUST MOP

developed & written by: LESTER SCHICK

visuals by: SANDRA GOSTOMSKI

TREAT - PUTTING OIL ON THE MOP HEAD.

PERFORMANCE OBJECTIVE

YOU ARE GOING TO LEARN

HOW TO TREAT A DUST MOP.

AND IN ORDER TO DO THIS YOU WILL NEED:



A NEW MOP HEAD



MOP OIL



HAND SPRAYER



RULER



PAD



PENCIL

WE WILL KNOW YOU CAN DO IT WHEN:

YOU HAVE TREATED A MOP HEAD EVENLY, HUNG IT UP IN THE RIGHT WAY,
AND HAVE NOT USED IT FOR 12 HOURS AFTER TREATING.

WHY DO YOU TREAT A MOP?

A MOP IS TREATED SO THAT IT _____

- A. LASTS LONGER
- B. FEELS SOFT
- C. MOPS BY ITSELF
- D. SOUNDS BETTER

HOPE YOU PICKED "A".

INFORMATION

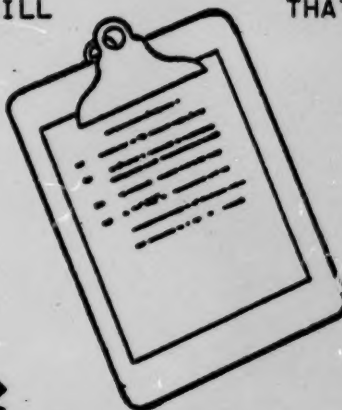
WHY DO YOU TREAT A DUST MOP?

REGULAR TREATMENT OF THE MOP HELPS KEEP THE MOP FROM WEARING OUT. IT ALSO HELPS THE MOP TO PICK UP DUST.

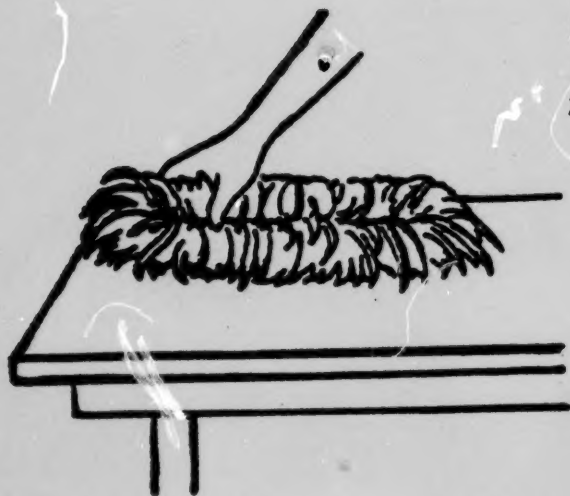
BE SURE YOU HAVE AN EQUIPMENT CHECKLIST FOR THE FLOOR CARE UNIT.

JOB STEPSWORD GUIDE

1. PICK UP THE EQUIPMENT YOU WILL NEED. USE YOUR CHECKLIST.



2. PUT THE MOP HEAD ON THE BENCH.



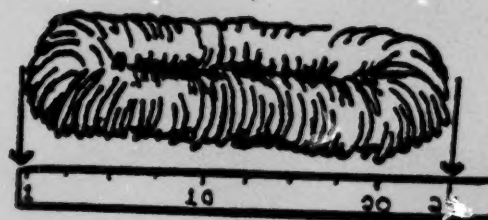
3. THE BOTTOM OF THE MOP MUST FACE UP.



4. SPREAD THE STRANDS OUT EVENLY AROUND THE CENTER OF THE MOP.



5. MEASURE THE WIDTH OF THE MOP
USE A RULER. WRITE DOWN THE
NUMBER OF INCHES.



$$\begin{array}{r} 4 \\ 6 \overline{)24} \end{array}$$

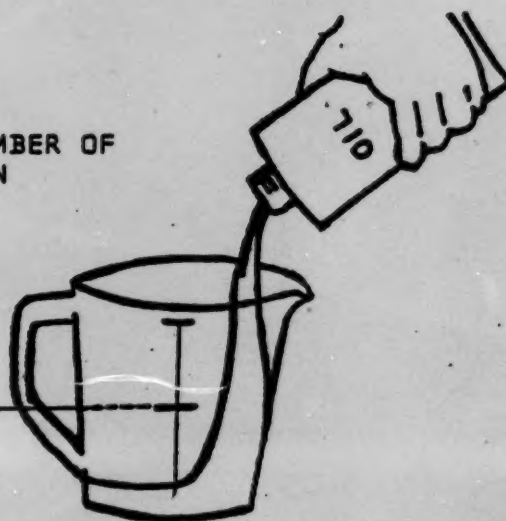
6. DIVIDE THE NUMBER OF INCHES BY
6, IF YOU TREAT MOPS ONCE A WEEK.
(IF YOU TREAT MOPS EACH DAY, DIVIDE
BY 12.)

7. THE ANSWER (IN STEP 6) IS THE
NUMBER OF OUNCES OF MOP OIL
YOU NEED.

4

8. MEASURE OUT THE CORRECT NUMBER OF
OUNCES OF MOP OIL (FOUND IN
STEP 7.)

4 OZS.



JOB STEPS

9. ADD THE MOP OIL TO THE HAND SPRAYER.

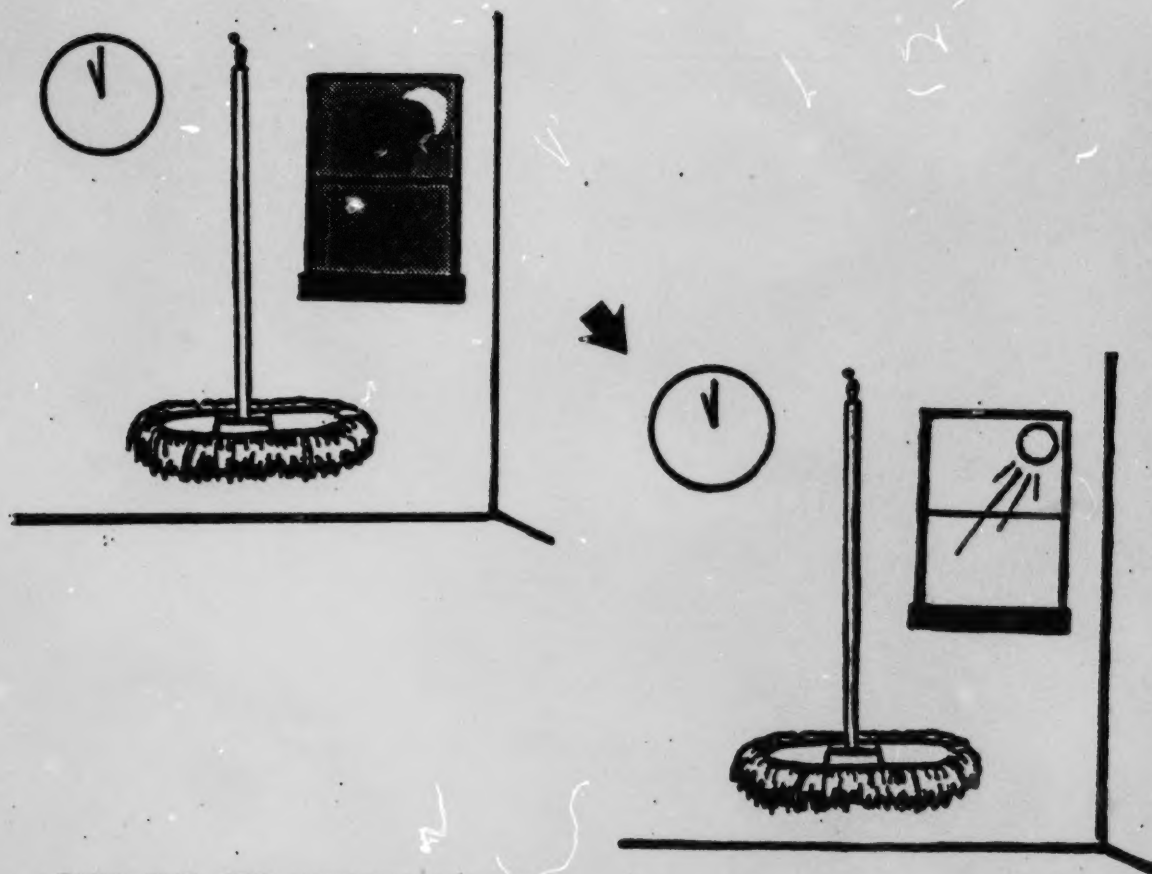


10. SPRAY THE OIL EVENLY ON THE MOP HEAD.

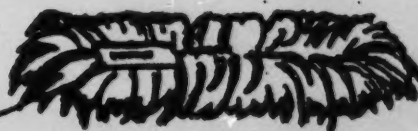


11. HANG THE MOP BY THE HANDLE. THE STRANDS MUST HANG TOWARDS THE FLOOR.



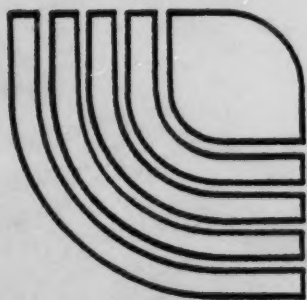
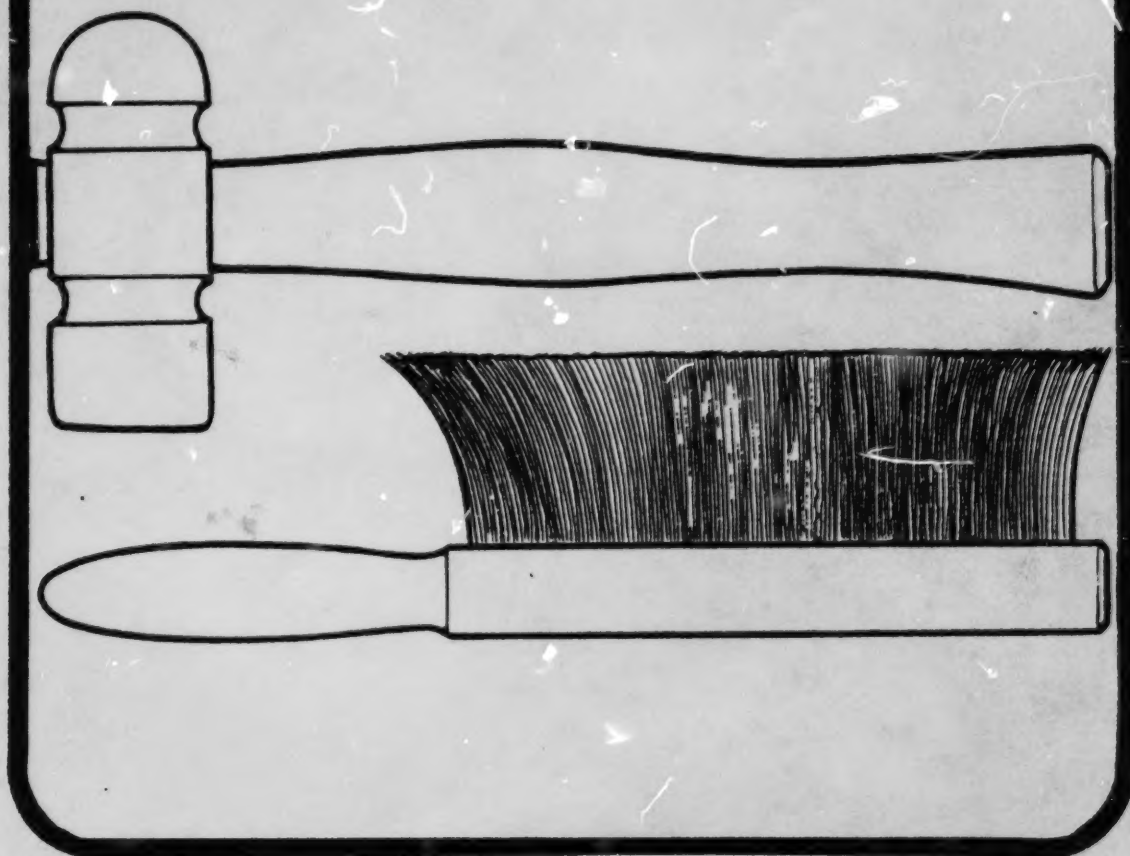
JOB STEPS

12. LEAVE THE MOP HANGING FOR 12 HOURS.



Pre-Treated

13. MOPS THAT ARE PRE-TREATED AT THE CLEANERS DO NOT NEED TO BE TREATED.



building maintenance & engineering

unit: GENERAL MAINTENANCE

capital area career center

module: 2201 02 001 3 date: DECEMBER 1976 level: I

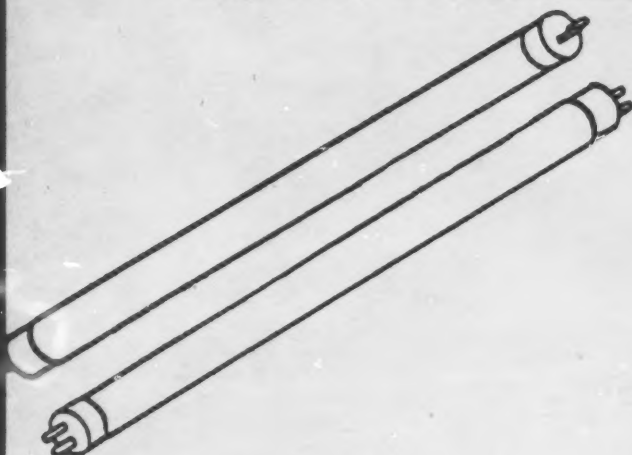
skill title: FLUORESCENT LAMP PLACEMENT

developed & written by: BUSTER CRABB

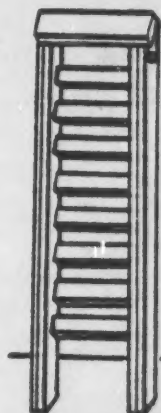
visuals by: SANDRA STARNAMAN

PERFORMANCE OBJECTIVEYOU ARE GOING TO LEARN:

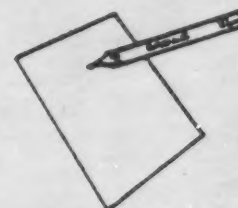
HOW TO REMOVE AND REPLACE FLUORESCENT LAMPS THAT EITHER DON'T WORK WELL OR ARE BURNED OUT.

IN ORDER TO DO THIS YOU WILL NEED:

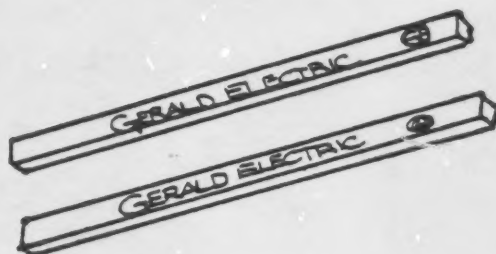
NEW FLUORESCENT LAMPS

STEP LADDER/SCAFFOLD
(CORRECT HEIGHT)

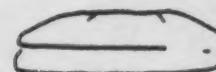
SAFETY GLASSES



PENCIL & PAPER



FLUORESCENT LAMP CARTON

SAFETY/CAUTION SIGNS
"OVERHEAD WORKER"DROP CLOTH,
IF USED

A HELPER, IF POSSIBLE

WE WILL KNOW YOU CAN DO IT WHEN:

1. YOU HAVE EVERYTHING YOU NEED TO DO THE JOB.
2. YOU HAVE WATCHED THE SLIDE/TAPE.
3. YOU HAVE REPLACED THE FLUORESCENT LAMP.

INFORMATION

HERE ARE SOME QUESTIONS AND ANSWERS ON THE REASONS FOR REPLACING FLUORESCENT LAMPS:

1. QUESTION: WHY DO WE HAVE TO PUT IN NEW LAMPS?

ANSWER: FOR THREE REASONS:

1. BROKEN LAMPS: ENDS OF LAMPS TURN A BROWN COLOR. THE LAMPS BLINK ON AND OFF.
2. BURNED-OUT LAMPS. NO LIGHT IS GIVEN OUT.
3. DIM LAMPS. THIS CAUSES THE EYES TO WORK TOO MUCH, GET TIRED AND CAUSES HEADACHES.

2. QUESTION: WHAT ARE THE DIFFERENT TYPES OF LAMP COVERS?

ANSWER: GLASS AND PLASTIC.

READ PAGES 202, 204-207 IN THE SACKS BUILDING AND PLANT MAINTENANCE BOOK. IT WILL SHOW SPECIAL EQUIPMENT USED TO REPLACE FLUORESCENT LAMPS.

WATCH THE SLIDE TAPE FOR THIS MOD. STUDY PAGE FOUR OF THIS MOD TO LEARN THE DIFFERENT KINDS OF LAMPS.

INFORMATION

SINGLE PIN



DOUBLE PIN



DOUBLE PIN SHIELDED



JOB STEPS

1. TAKE ALL EQUIPMENT TO YOUR WORK AREA.



2. CHECK THE LADDER TO MAKE SURE IT WORKS OK.

3. PUT CAUTION SIGNS ON EACH SIDE OF YOUR WORK AREA.



"TURN THE PAGE"

4. FIND THE ELECTRIC LIGHT SWITCH FOR YOUR AREA AND BE SURE TO TURN IT OFF.

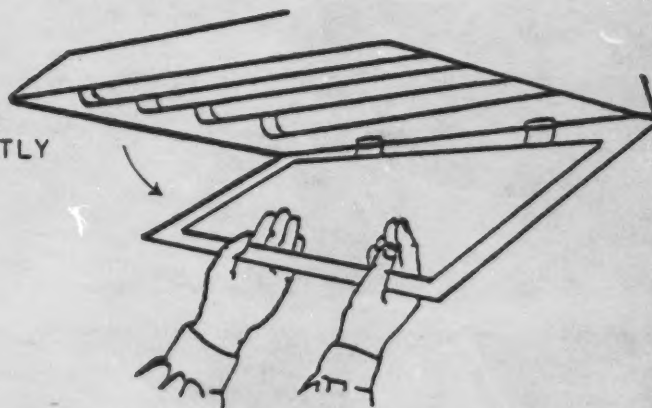
NOTE: IF YOU DO NOT TURN IT OFF, YOU WILL GET A SHOCK WHEN YOU ARE CHANGING THE LAMP.



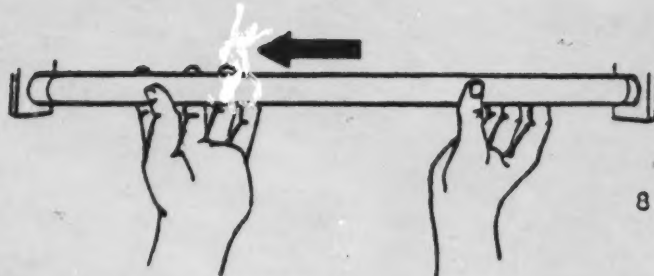
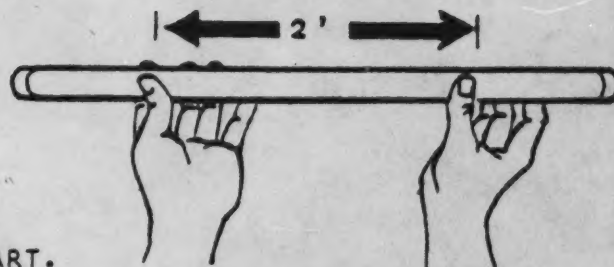
5. PUT YOUR LADDER UP UNDER THE LAMP FIXTURE ON WHICH YOU WILL WORK.

NOTE: BE SURE YOUR LADDER IS SAFE AND SOLID UNDER THE LAMP.

6. THE LAMPS WILL BE PROTECTED BY GLASS OR PLASTIC SHIELDS. GENTLY PULL THE SHIELD AWAY FROM THE FIXTURE.



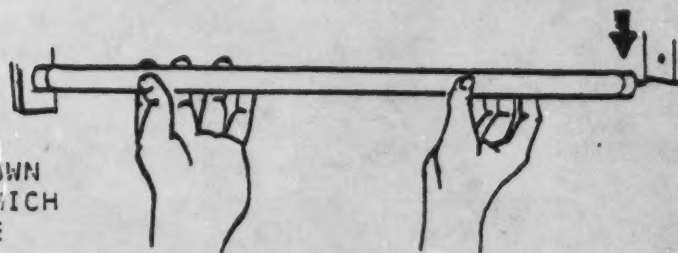
7. FOR SINGLE PIN LAMPS, PUT YOUR HANDS AT THE MIDDLE OF THE LAMP WITH YOUR HANDS ABOUT 2 FEET APART.



8. PRESS LIGHTLY TOWARDS ONE END OF THE LAMP. THIS SHOULD FREE THE PIN AT THE OTHER END OF THE LAMP.

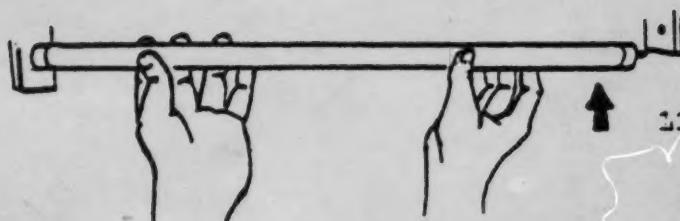
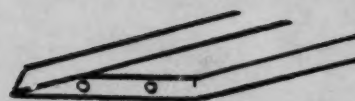


9. WITH CARE, PULL THE LAMP DOWN AND AWAY FROM THE END ON WHICH YOU PRESSED. THE LAMP TUBE SHOULD BE FREE.

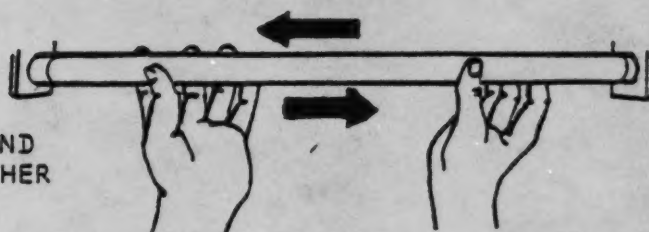


JOB STEPS

10. TAKE A NEW LAMP, REACH UP AND PUT THE PIN IN ONE END.



11. WITH CARE, LIFT UP THE LAMP SO THAT THE OTHER END OF THE LAMP IS ALSO NEAR THE OPENING IN THE FIXTURE.

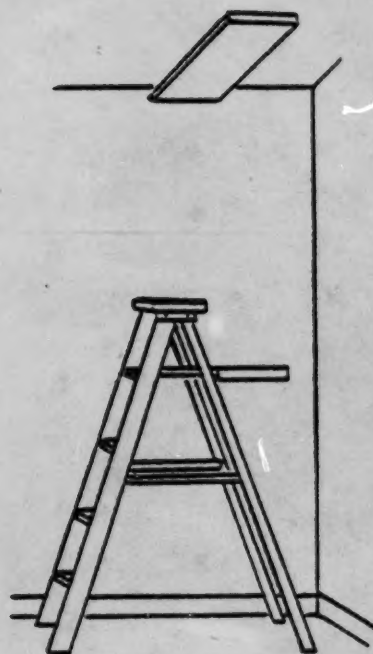


12. PUSH THE PIN INTO THE HOLE AND SLIP THE OTHER END IN THE OTHER HOLE.

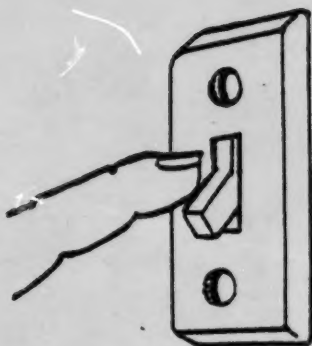


13. NOW ASK YOUR INSTRUCTOR TO SHOW YOU WHERE TO FIND A DOUBLE-PIN LAMP.

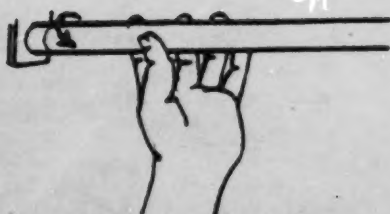
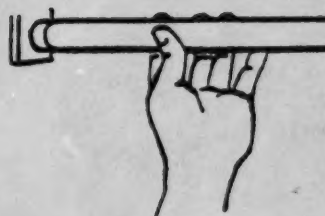
14. PUT YOUR LADDER UP AND MAKE SURE IT IS SAFE.



15. BE SURE THE LIGHT IS "OFF".



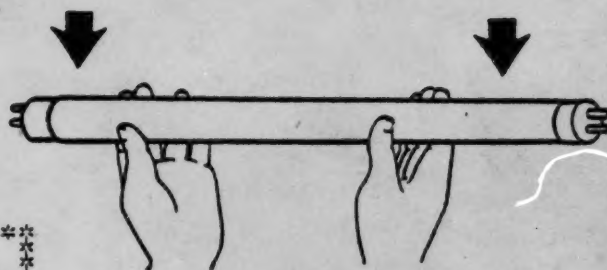
16. FOR DOUBLE PIN LAMPS, HOLD THE FLUORESCENT LAMP AT THE MIDDLE WITH THE THUMB AND FINGERS AS CLOSE TO THE ENDS AS YOU CAN.



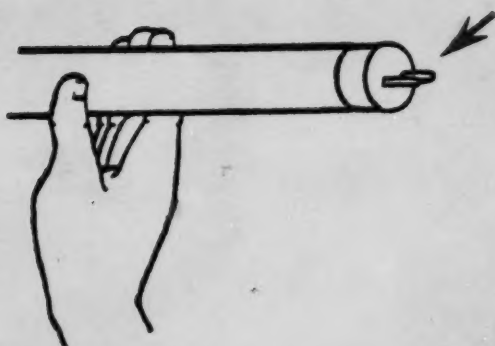
17. BY MOVING THE THUMB DOWN AND FINGERS UP, TURN LAMP 1/4 TURN.

JOB STEPS

18. THIS PUTS BOTH PINS IN THE UP AND DOWN SLOT. WITH A SOFT PULL DOWN YOU SHOULD FREE THE TUBE FROM THE SOCKET.

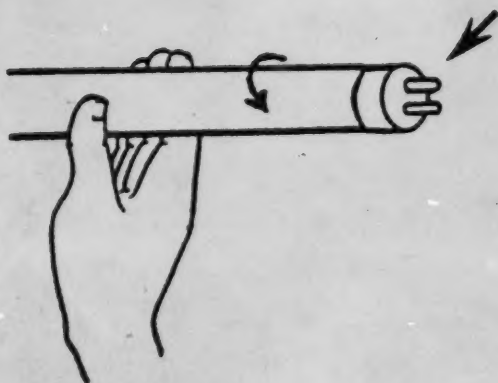
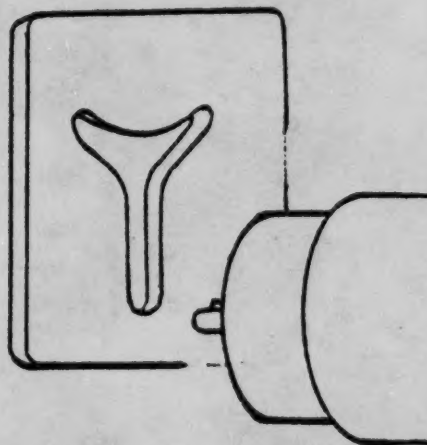


 ** CAUTION: DO NOT FORCE THE LAMP **
 ** BECAUSE IT COULD BLOW **
 ** UP AND INJURE YOU. **



19. WITH A NEW LAMP IN YOUR THUMB AND FINGERS, LINE UP THE PINS AS THE PICTURE SHOWS.

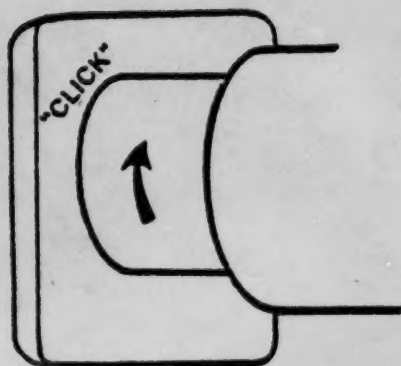
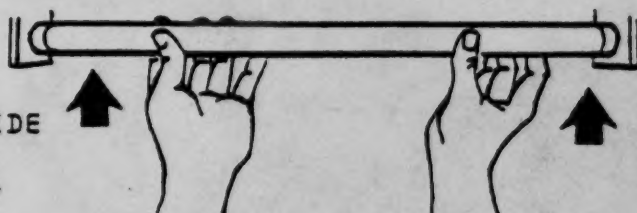
20. MOVE THE LAMP END RIGHT UNDER THE SOCKET.



21. AS SHOWN IN THE PICTURE, TURN LAMP 1/4 TURN FROM THIS ●●
 TO THIS: ●

TO THAT.

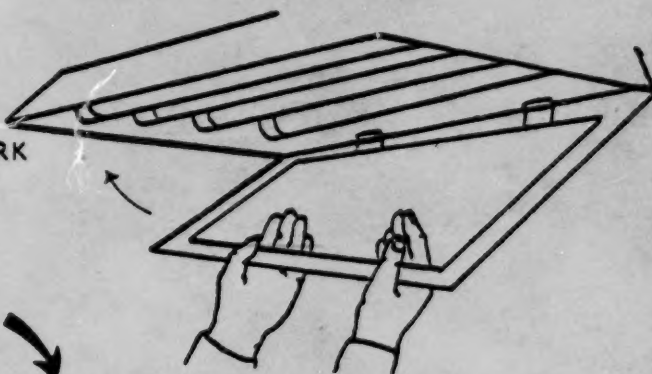
22. HOLD THE ABOVE POSITION. SLIDE LAMP PINS UP INTO THE UP AND DOWN SLOTS AS FAR AS YOU CAN.



23. NOW TURN THE LAMP 1/4 TURN EITHER WAY UNTIL YOU HEAR A "CLICK". THE LAMP SHOULD BE IN POSITION AND LOCKED IN.

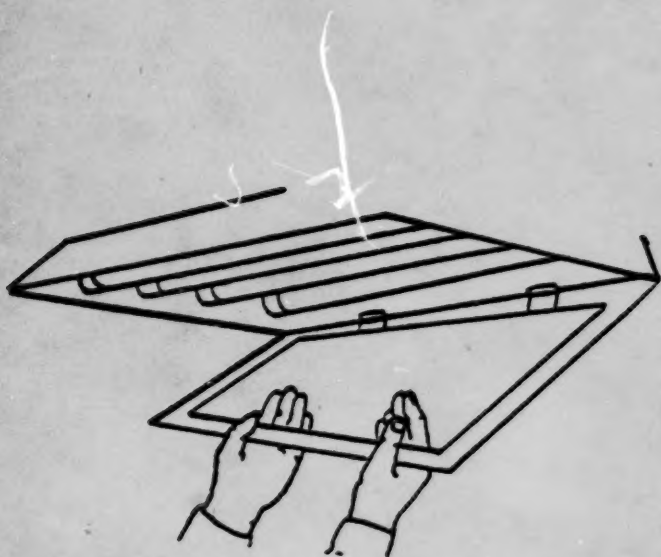
 ** CAUTION: DO NOT FORCE THE LAMP **
 ** AS IT MIGHT BLOW UP **
 ** AND INJURE SOMEONE. **

24. AFTER YOUR INSTRUCTOR HAS CHECKED YOUR WORK, CLOSE THE SHIELD AND GO TO THE NEXT WORK AREA.



25. THE LAST KIND OF LAMP IS THE DOUBLE PIN SHIELDED LAMP. IT IS TAKEN OUT AND PUT BACK IN THE SAME WAY AS STEPS 7-12. AS WITH THE OTHER TWO KINDS OF LAMPS, NEVER FORCE THIS LAMP.

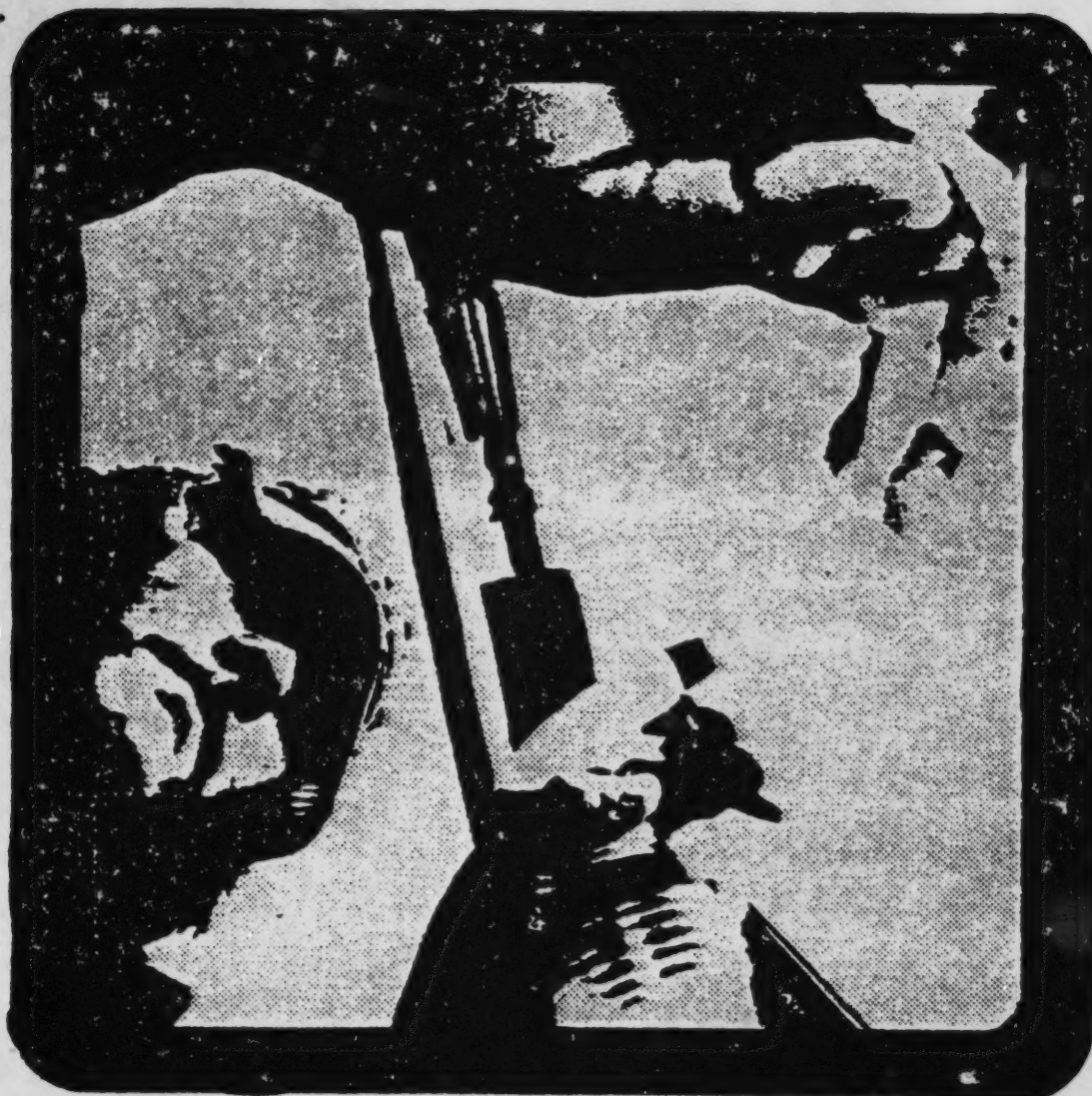
26. STEP DOWN FROM THE LADDER AND CHECK THE NEW LAMP BY TURNING THE LIGHT SWITCH "ON".



27. IF THE LIGHT WORKS, PUT THE GLASS OR PLASTIC SHIELD BACK IN PLACE.

28. WHEN YOU ARE DONE, TAKE ALL YOUR EQUIPMENT TO THE RIGHT STORAGE AREA.





building maintenance & engineering

unit: GENERAL MAINTENANCE

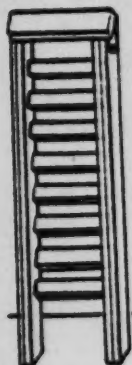
capital area career center

module: 2201 02 002 3 date: 5/77 level: I

skill title: FLOURESCENT FIXTURE, SHADE, AND TUBE WASHING

developed & written by: DWIGHT SMITH

visuals by: SANDRA STARNAMAN

WORD GUIDEFLUORESCENT - LONG TUBE, TYPE OF BULB.FIXTURE - LIGHT HOLDER.LOUVERED - SOMETHING WITH SLOTS.
(SEE PAGE 4 FOR PICTURES OF DIFFERENT KINDS OF LAMPS).PERFORMANCE OBJECTIVEYOU ARE GOING TO LEARN:HOW TO CLEAN FLUORESCENT TUBES, GLASS OR PLASTIC LIGHTS,
LOUVERED TYPE FLUORESCENT SHIELDS, AND FIXTURES.AND IN ORDER TO DO THIS YOU WILL NEED:

STEP LADDER



2 PAILS



SPONGE



WIPING CLOTHS



ALL-PURPOSE CLEANER

TABLE OR STAND
WITH WHEELS"SAFETY/CAUTION"
SIGNS

HELPER (IF POSSIBLE)



DROP CLOTH

WE WILL KNOW YOU CAN DO THIS WHEN:YOU HAVE CLEANED A FLUORESCENT TUBE, SHIELD, AND FIXTURE, AND
YOU HAVEN'T LEFT ANY DIRT SHOWING ON THE LIGHT.

INFORMATION

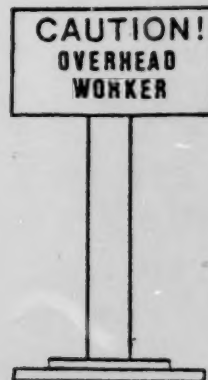
WHY DO LIGHTS AND FIXTURES NEED CLEANING?

DIRT BUILDS UP ON LIGHT SHIELDS AND CUTS DOWN THE LIGHT THAT GETS THROUGH. THIS CAN CAUSE PEOPLE TO HAVE HEADACHES, EYESTRAIN, AND FATIGUE.

CHECK YOUR LADDER FOR SAFETY:

1. IS THE LADDER HIGH ENOUGH? YOU MUST BE ABLE TO REACH THE LIGHTS WITHOUT STRETCHING.
2. IS THE LADDER STRONG ENOUGH TO HOLD YOU?
3. IS THE LADDER CRACKED OR BROKEN AT ALL?

USE A SAFETY SIGN LIKE THIS:



SOMETIMES YOU WILL USE TANKS OR TABLES FOR WASHING LIGHT TUBES. THEY SHOULD BE 6 TO 12 INCHES LONGER THAN THE SHIELDS AND TUBES WHICH YOU WILL WASH.

NOW DO: WHEN YOU HAVE STUDIED THE INFORMATION ON THIS PAGE, GO ON WITH THIS MOD.

JOB STEPSWORD GUIDEFIXTURE - LAMP HOLDER.

1. GET THE EQUIPMENT YOU NEED AND GO TO THE WORK AREA.



2. SET UP YOUR SAFETY SIGNS.

3. FILL UP BOTH PAILS 1/2 TO 3/4 FULL WITH WARM WATER.



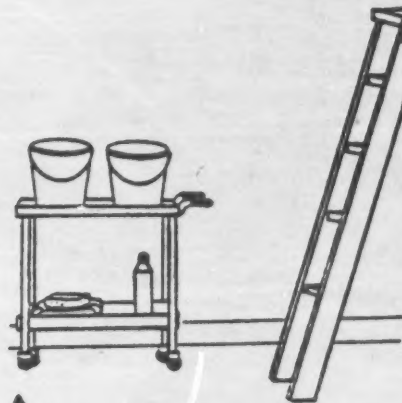
4. PUT SOME ALL-PURPOSE CLEANER IN ONE PAIL. FOLLOW THE DIRECTIONS ON THE CLEANER PACKAGE.

JOB STEPS

5. PUT THE LADDER UNDER THE FLOURESCENT LIGHT FIXTURE. BE SURE IT IS SAFE AND READY TO USE.



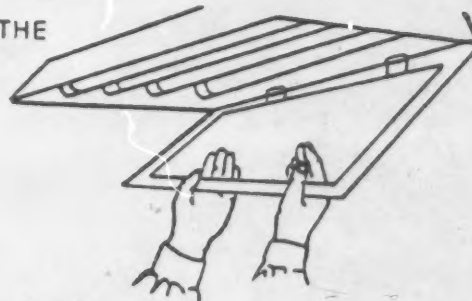
6. IF YOU ARE USING WASHING TANKS, PUT THEM NEARBY.



7. TURN OFF THE LIGHTS!



8. CLIMB UP THE LADDER AND OPEN THE SHIELD.



JOB STEPS

9. TAKE OUT THE FLOURESCENT TUBES AND GIVE THEM TO THE HELPER.



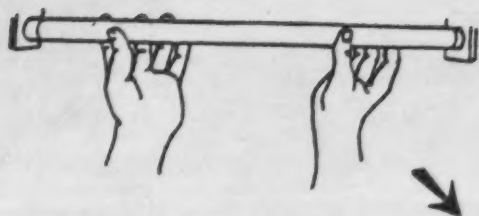
10. USING A DAMP SPONGE, WASH THE FIXTURES AND SHIELDS.



11. USING A DRY WIPING CLOTH, WIPE DRY THE FIXTURE AND SHIELD.

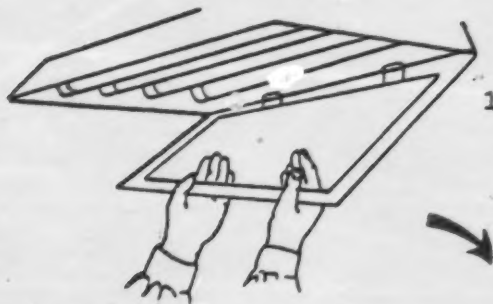
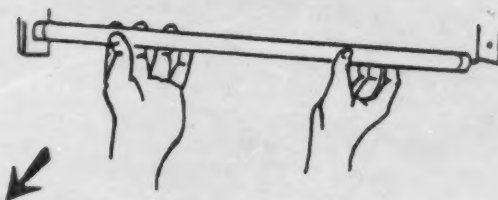


12. GIVE THE TUBE BACK TO THE PERSON ON THE LADDER.

JOB STEPS

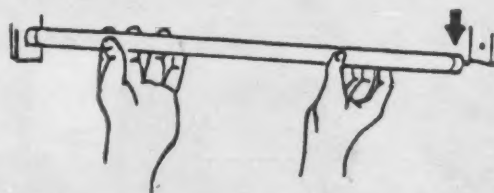
13. PUT THE TUBE BACK INTO THE FIXTURE. BE SURE IT IS IN CORRECTLY.

14. REPEAT JOB STEPS 9 - 13, FOR EACH TUBE IN THE FIXTURE.



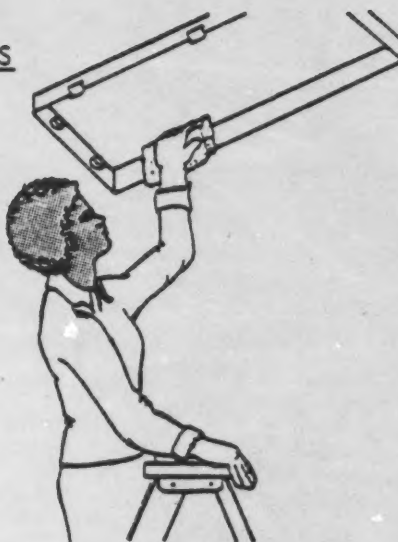
15. PUT THE SHIELD BACK ON. BE SURE THE SHIELD IS ON STRAIGHT.

16. ASK YOUR HELPER TO TURN ON THE SWITCH. IF THE LIGHT WORKS, GO ON TO THE NEXT FIXTURE. IF THE LIGHT DOES NOT WORK, CHECK HOW YOU PUT IN THE TUBES.



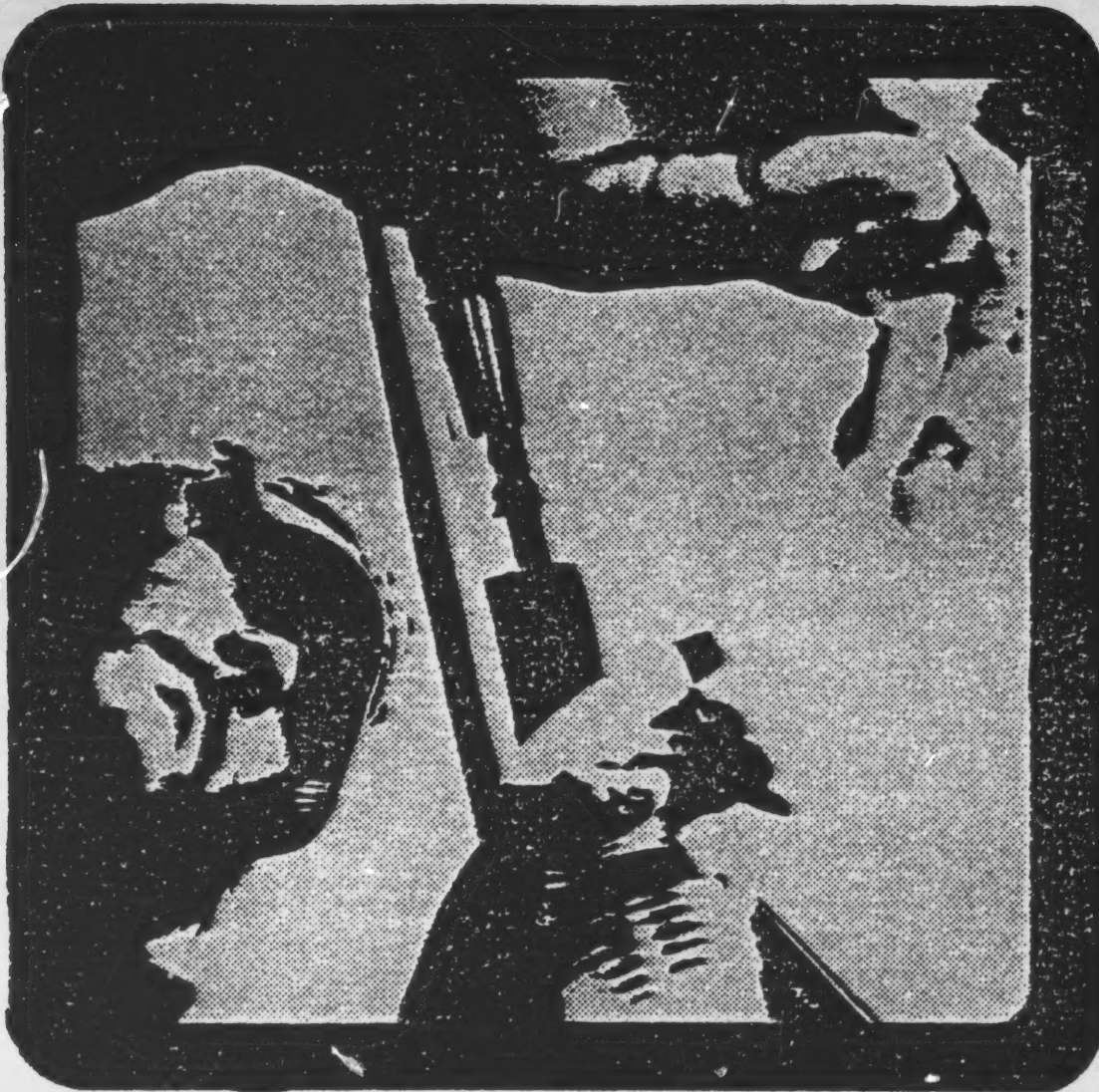
JOB STEPS

17. REPEAT JOB STEPS 6 - 16 ON THE NEXT FIXTURE.



18. YOU NOW CAN WASH FLUORESCENT FIXTURES, TUBES AND SHIELDS.

19. PUT AWAY ALL EQUIPMENT. BE SURE TO CLEAN ANY DIRTY EQUIPMENT BEFORE PUTTING AWAY.



building maintenance & engineering

unit: WALL CARE

capital area career center

module: 2201 02 003 3 date: FEB/77 level:

skill title: SPOT CLEANING AND WASH WALLS

developed & written by: DWIGHT SMITH

visuals by: SANDRA STARNAMAN

WORD GUIDE

SCAFFOLDING - PLATFORM TO STAND ON
TO REACH PLACES.

PERFORMANCE OBJECTIVEWHAT YOU ARE GOING TO LEARN:

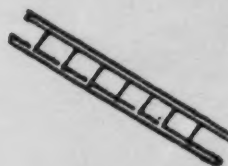
HOW TO SPOT-CLEAN AND WASH WALLS.

AND IN ORDER TO DO THIS YOU WILL NEED:

HAND DUSTER



DROP CLOTHS



LADDER OR SCAFFOLDING



SPRAY BOTTLE



2 SPONGES



2 PAILS



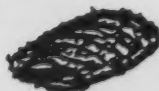
ALL-PURPOSE CLEANER



WIPING CLOTHS



RUBBER GLOVES



STEEL WOOL #00



PAPER AND PENCIL

WE WILL KNOW YOU CAN DO IT WHEN:

YOU HAVE WASHED A WALL AND THERE ARE NO DRIPS, DIRT OR STAINS
AND THE EQUIPMENT IS CLEAN AND PUT IN ITS RIGHT PLACE.

INFORMATION

READ THESE MATERIALS:

"WASHING WALLS WITH A MACHINE"
BUILDING AND PLANT MAINTENANCE, PAGE 350

"CARE OF EQUIPMENT"
BUILDING AND PLANT MAINTENANCE, PAGES 351-352

WHY DO WALLS NEED WASHING?

BECAUSE DIRT AND STAINS BUILD UP. WASHING MAKES THE WALL
LOOK BRIGHTER AND MAKES THE PAINT LAST LONGER.

HINTS FOR WALL WASHING:

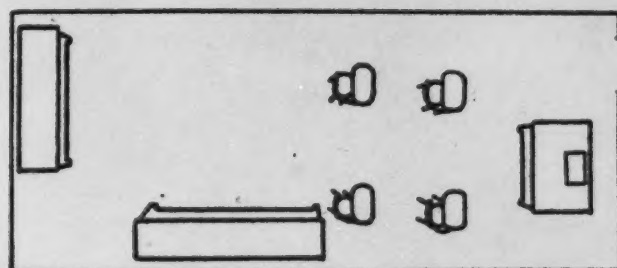
1. USE A CIRCULAR MOTION.
2. DO NOT LET CLEANING SOLUTION DRIP ONTO A
CLEAN OR DRY AREA.
3. WASH WOODWORK AND MOLDING WHILE YOU'RE AT IT.
4. TO SAVE WORK LATER, CLEAN YOUR EQUIPMENT.

JOB STEPS

1. GET THE EQUIPMENT LISTED ON PAGE 2 AND GO TO THE WORK AREA.



2. MAKE A MAP OF ALL THE FURNITURE AND THINGS YOU WILL MOVE.

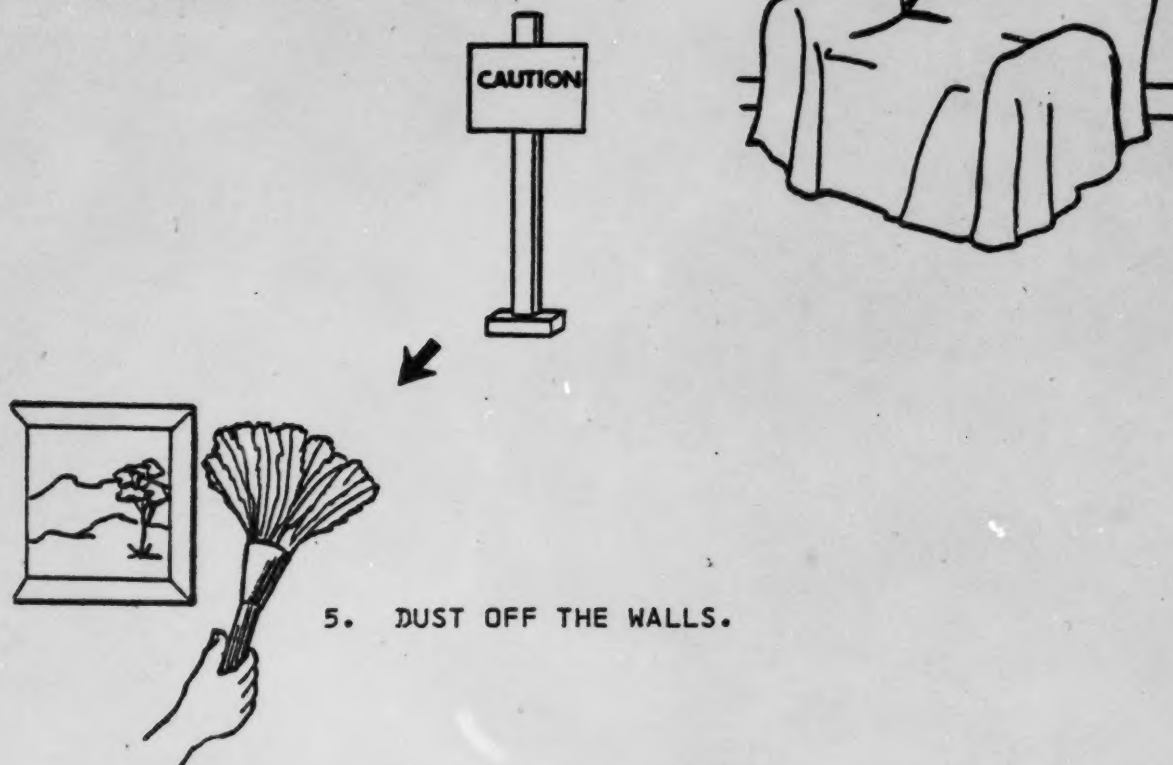


3. MOVE THE THINGS THAT ARE IN YOUR WAY.

 *** CAUTION! 1. GET HELP WITH ***
 *** HEAVY THINGS. ***
 *** 2. LIFT WITH YOUR ***
 *** LEGS, NOT YOUR ***
 *** BACK. ***

JOB STEPS

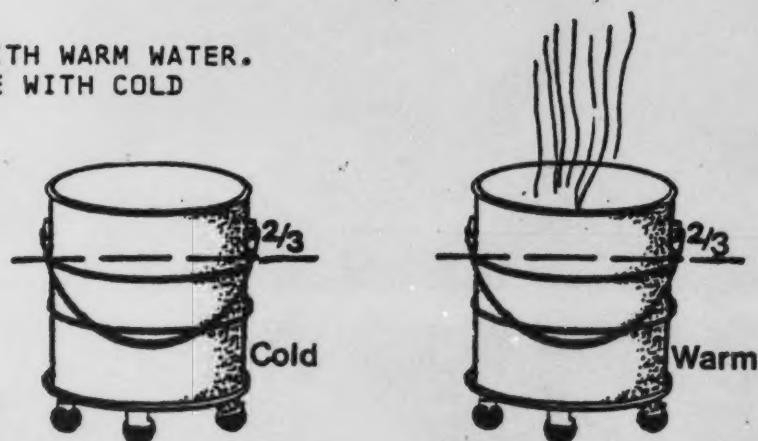
4. SPREAD THE DROP CLOTHS AND PUT OUT THE CAUTION SIGNS.



5. DUST OFF THE WALLS.

WASHING THE WALLS

1. FILL 1 PAIL 2/3 WITH WARM WATER. FILL THE OTHER ONE WITH COLD WATER.



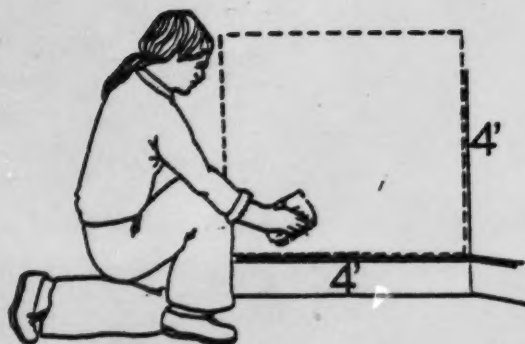
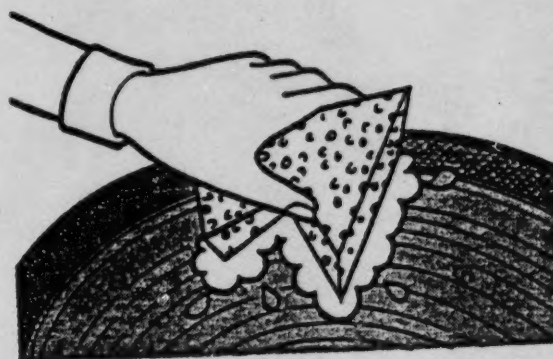
JOB STEPS

2. PUT A CLEAN SPONGE IN EACH PAIL.

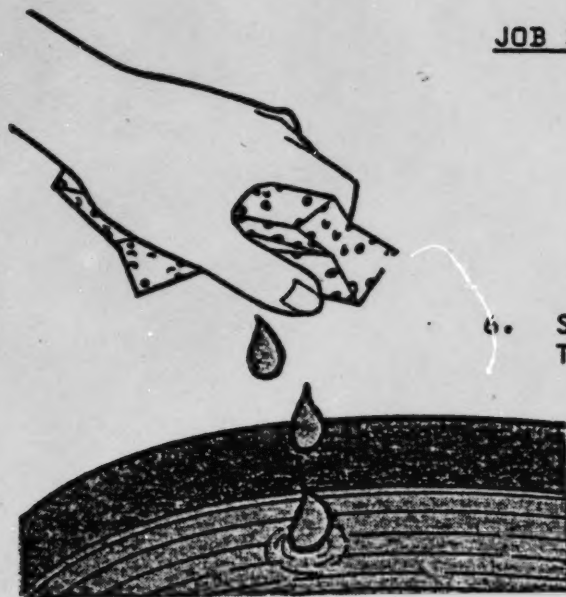


3. PUT 6 OUNCES OF ALL PURPOSE
CLEANER INTO THE WARM PAIL.
MIX IT UP.

4. SQUEEZE OUT MOST OF THE WATER
FROM THE SPONGE IN THE CLEANING
SOLUTION PAIL.



5. WASH A 4 FOOT BY 4 FOOT AREA.

JOB STEPS

6. SQUEEZE OUT THE OTHER SPONGE.
THE SPONGE MUST BE SLIGHTLY WET.



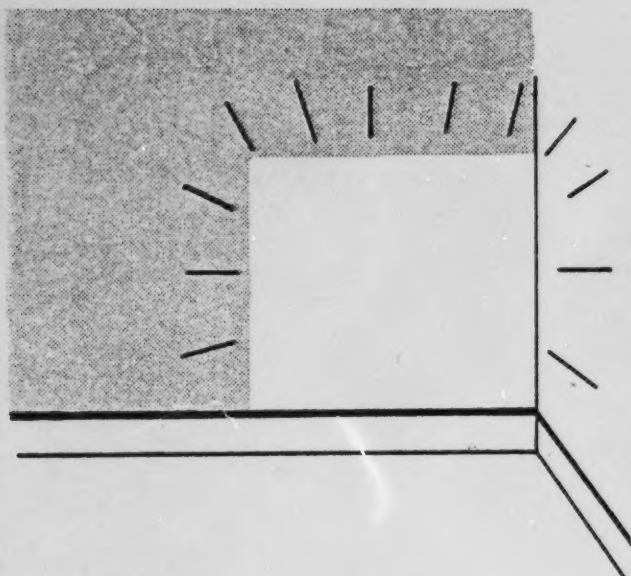
7. RINSE THE AREA YOU JUST WASHED
WITH THE CLEAN SPONGE.



8. WIPE THE AREA DRY WITH A DRY
CLOTH.

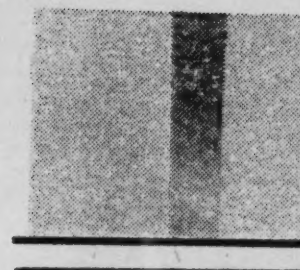
JOB STEPSWORD GUIDE

OVERLAP - TO GO OVER AND CLEAN A PART OF AN AREA THAT HAD BEEN CLEANED.



9. MOVE OVER INTO A NEW 4 FOOT BY 4 FOOT AREA.

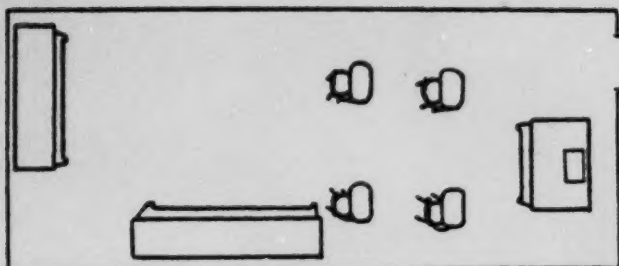
10. REPEAT JOB STEPS 4,5,6,7,8, AND 9 UNTIL YOU CLEAN THE WHOLE AREA. OVERLAP 4 INCHES OR SO.



11. CHANGE THE WATER IN THE PAILS WHEN IT GETS DIRTY.

JOB STEPS

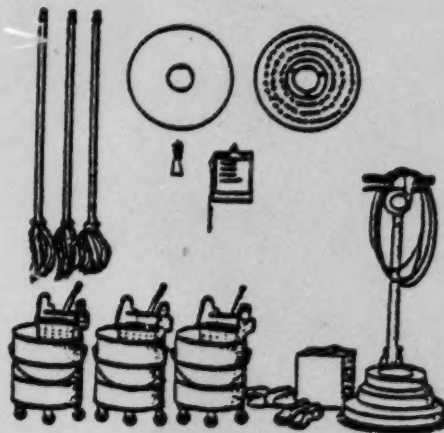
12. WIPE UP SPILLS AND DRIPS AS SOON AS YOU MAKE THEM.



13. PUT ALL THE THINGS YOU MOVED BACK INTO THEIR RIGHT PLACE. USE THE MAP YOU MADE TO GET EVERYTHING RIGHT.



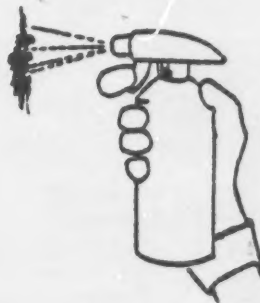
14. CLEAN ALL THE EQUIPMENT YOU USED AND PUT IT AWAY.

SPOT CLEANING WALLS

1. FILL THE SPRAY BOTTLE 1/2 WITH CLEANING SOLUTION AND 1/2 WITH COLD WATER.

JOB STEPS

2. SPRAY THE DIRTY SPOTS ON THE WALL.

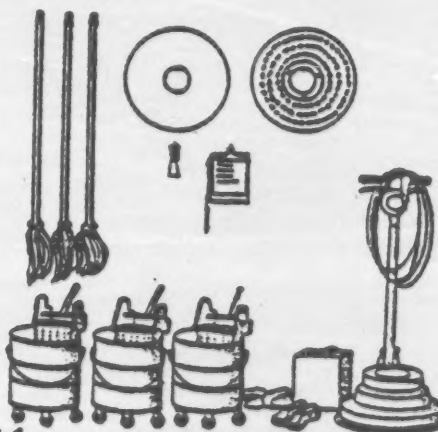
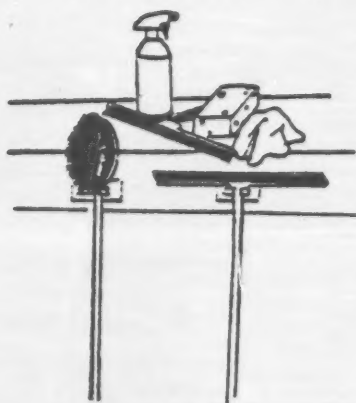


3. WIPE THE SPOTS WITH A CLEAN SPONGE TO REMOVE THE DIRT.

4. DRY THE AREA WITH A CLEAN CLOTH.



5. CLEAN THE SPRAY BOTTLE WHEN YOU'RE FINISHED, AND PUT AWAY THE EQUIPMENT.





building maintenance & engineering

unit: GENERAL MAINTENANCE

capital area career center

module: 2201 02 4 3 date: 2/77 level:

skill title: SPOT-CLEANING AND WASHING WINDOWS

developed & written by: DWIGHT SMITH

visuals by: MARIE GOUGEON

WORD GUIDE

CHAMOIS - SHEEP SKIN USED FOR CLEANING.

PERFORMANCE OBJECTIVEYOU ARE GOING TO LEARN:

HOW TO SPOT-CLEAN AND WASH WINDOWS.

AND IN ORDER TO DO THIS YOU WILL NEED:

SPRAY BOTTLE

DROP CLOTH

GLASS CLEANER

PAIL



SQUEEGEE



CHAMOIS OR
WIPING CLOTH



LADDER, IF NEEDED



GLASS BRUSH



RAZOR BLADE SCRAPER



LONG HANDLED WINDOW BRUSH,
IF NEEDED

WE WILL KNOW YOU CAN DO IT WHEN:

YOU HAVE WASHED WINDOWS AND THERE ARE NO STREAKS OR SPOTS, AND
THE WINDOWS ARE CLEAN AND CLEAR.

INFORMATION

WHY DO YOU CLEAN WINDOWS?

1. TO LET IN MORE LIGHT. DIRTY WINDOWS CAN BLOCK 30% OF THE LIGHT.
2. TO MAKE THE BUILDING LOOK BETTER AND BE MORE CHEERFUL.

HINTS FOR WINDOW WASHING:

1. WASH ON THE SHADY SIDE OF THE BUILDING.
2. BE CAREFUL ON LADDERS.
3. DO NOT USE ACIDS ON GLASS.
4. DO NOT WASH WINDOWS DURING HIGH WINDS OR ICE STORMS.

"SAFETY FACTORS: BUILDING AND FIXTURES"

READ THE FOLLOWING MATERIALS: BUILDING MAINTENANCE, PAGES 369-378.

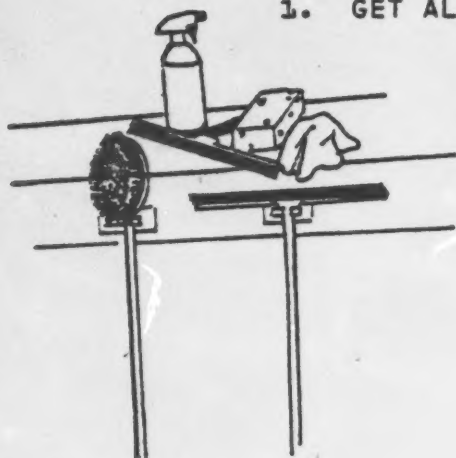
AFTER YOU HAVE READ THE ABOVE INFORMATION AND FEEL YOU KNOW IT, GO ON TO THE NEXT PAGE.

JOB STEPSWORD GUIDE

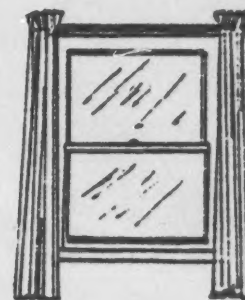
GLASS BRUSH - A BRUSH WITH LONG, SOFT BRISTLES; USED MOSTLY FOR CLEANING GLASS.

SASH - THE FRAME AROUND A WINDOW.

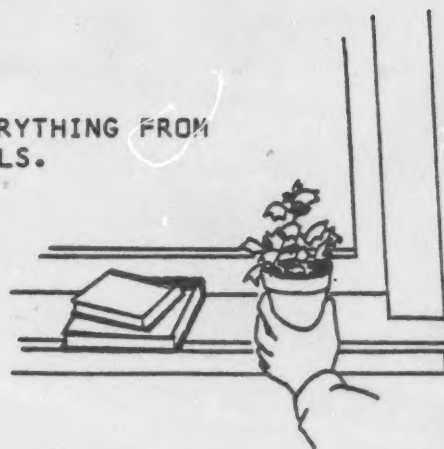
1. GET ALL THE EQUIPMENT NEEDED.



2. GO TO THE JOB AREA.



3. REMOVE EVERYTHING FROM WINDOW SILLS.



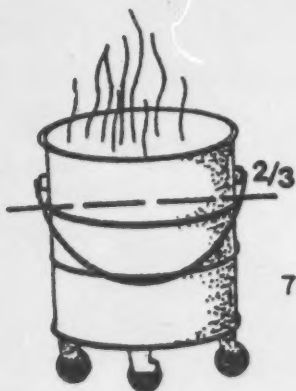
4. OPEN THE DRAPES AND RAISE THE SHADES.

JOB STEPS

5. SPRAY A SMALL BIT OF WINDOW CLEANER ON ALL THE DIRTY SPOTS ON THE GLASS.



6. WIPE THE GLASS CLEAN WITH A WIPING CLOTH.

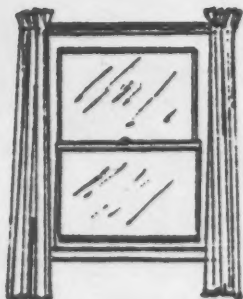
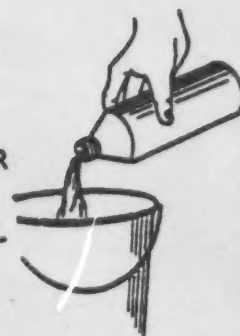


7. FILL A BUCKET 2/3 WITH WARM WATER.



8. ADD 6 OUNCES OF GLASS CLEANER TO THE BUCKET.

6 ozs.

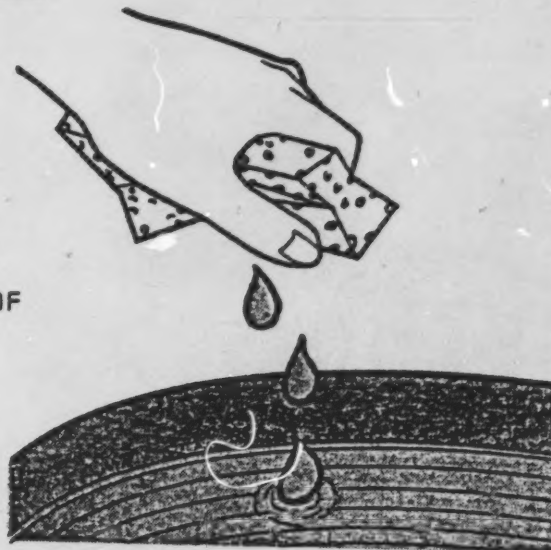


9. SPREAD OUT THE DROP CLOTH BELOW THE GLASS YOU ARE GOING TO CLEAN.



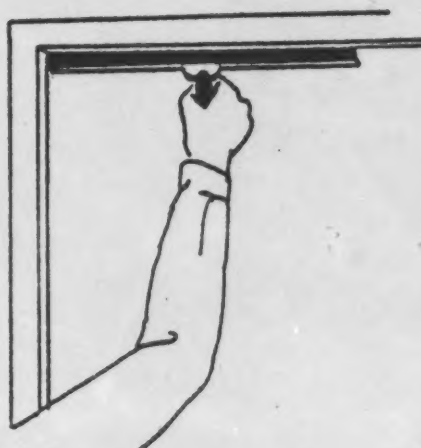
JOB STEPS

10. DIP A CLEAN SPONGE INTO THE GLASS CLEANING SOLUTION. SQUEEZE MOST OF THE WATER OUT. THE SPONGE SHOULD NOT DRIP.



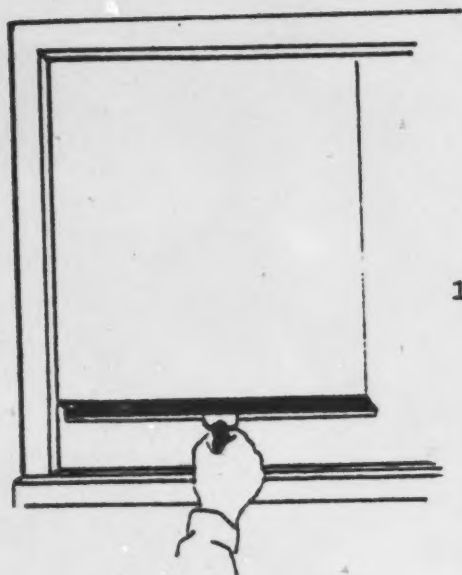
11. START AT THE TOP LEFT SIDE CORNER OF THE WINDOW. SCRUB THE GLASS WITH THE SPONGE AND LOOSEN ALL THE DIRT.

12. STARTING FROM THE TOP LEFT CORNER, SQUEEGEE THE WATER FROM THE GLASS.



JOB STEPS

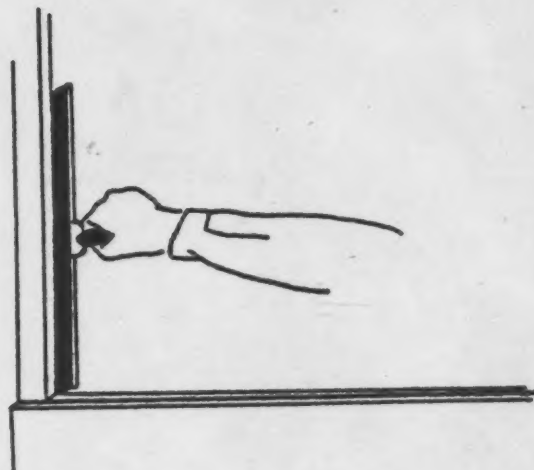
13. USING A WIPING CLOTH, WIPE THE SQUEEGEE EACH TIME YOU LIFT IT FROM THE GLASS.



14. MOVE THE SQUEEGEE DOWN TO ABOUT 4 INCHES FROM THE BOTTOM. OVERLAP EACH STROKE.



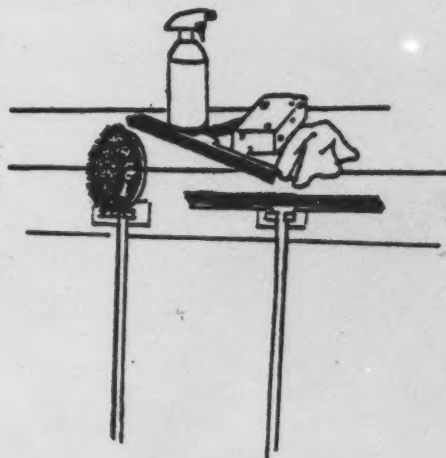
15. SQUEEGEE THE BOTTOM OF THE GLASS.



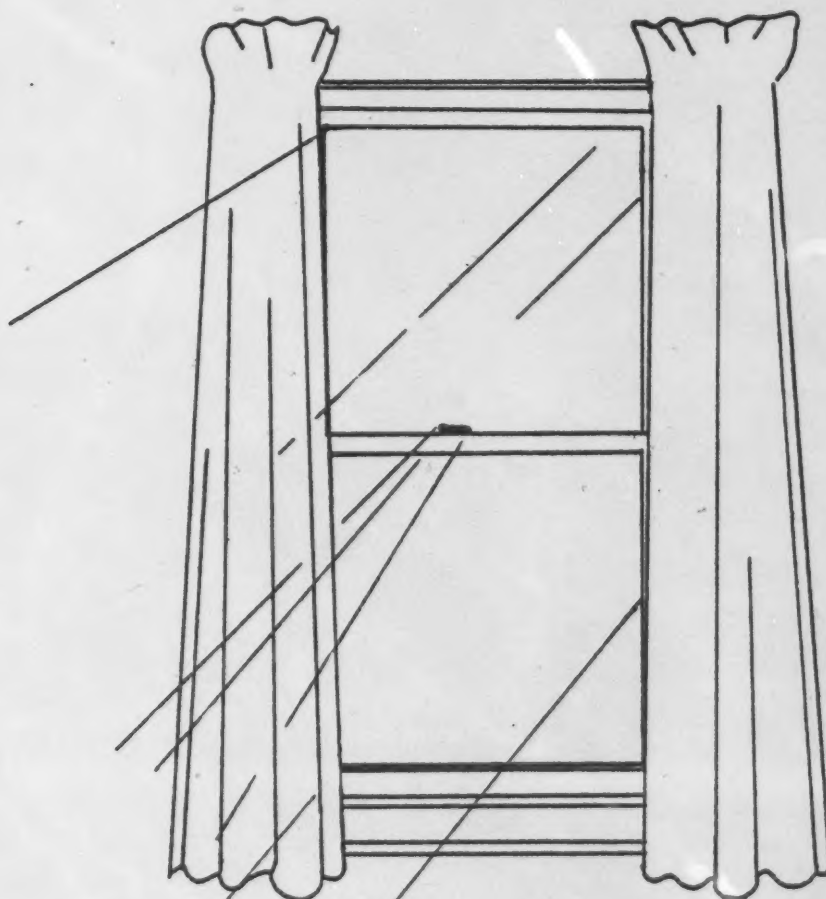
16. WIPE THE WINDOW SASH WITH A CLEAN CLOTH.

JOB STEPS

17. CLEAN ALL THE EQUIPMENT YOU USED
AND RETURN IT TO ITS PROPER PLACE.



18. YOU HAVE DONE THE
STEPS FOR CLEANING WINDOWS, AND YOU
HAVE LET IN THE SUNSHINE.





building maintenance & engineering

unit: EQUIPMENT CARE

capital area career center

module: 2201 02 005 3 date: _____ level: _____

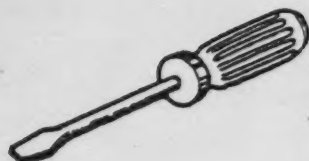
skill title: CLEANING AND MAINTAINING EQUIPMENT

developed & written by: DWIGHT SMITH

visuals by: DAVE WEHRWEIN

PERFORMANCE OBJECTIVEYOU ARE GOING TO LEARN:

HOW TO CLEAN AND MAINTAIN EQUIPMENT.

AND IN ORDER TO DO THIS YOU WILL NEED:

SCREW DRIVERS



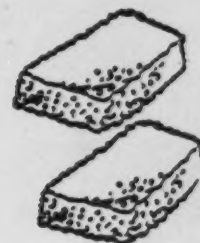
CRESCENT WRENCHES



HAMMER

ELECTRICAL
TAPEMETAL CLEANER FOR STAINLESS STEEL,
ALUMINUM, AND BRASS

ALL-PURPOSE CLEANER



2 SPONGES



WIPING CLOTHS



PUTTY KNIFE



STEEL WOOL



SPRAY BOTTLE

CHROME
CLEANERWE WILL KNOW YOU CAN DO IT WHEN:

YOU HAVE CLEANED AND MAINTAINED ALL THE EQUIPMENT IN THE GENERAL MAINTENANCE UNIT.

WORD GUIDE

FLAMMABLE - EASY TO CATCH FIRE.

INFORMATION

WHY DO YOU CLEAN AND MAINTAIN EQUIPMENT?

1. CLEAN EQUIPMENT WORKS BETTER AND HELPS YOU DO YOUR JOB.
2. CLEAN EQUIPMENT IS SAFER AND LASTS LONGER.

FOR CLEANING AND MAINTAINING EQUIPMENT:

Don't...!

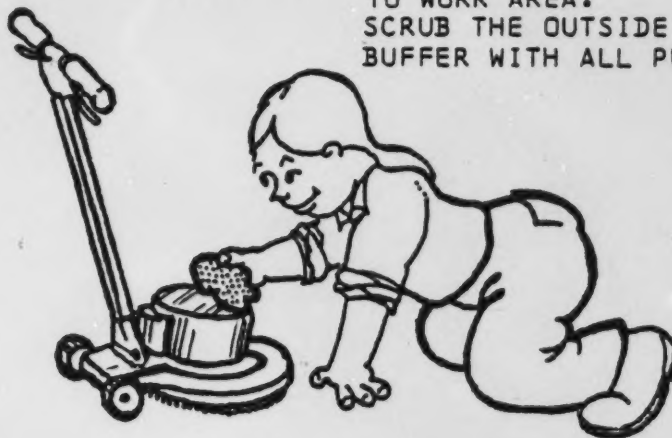
1. USE A FLAMMABLE CLEANER INDOORS OR IN A SMALL ROOM.
2. USE AMMONIA IN A SMALL ROOM.
3. COIL UP ELECTRIC CORDS.
4. STORE VACUUM CLEANER HOSE WITH KINKS IN IT.

WHEN YOU CAN TELL YOUR INSTRUCTOR ABOUT THE ABOVE INFORMATION,
TURN THE PAGE AND BEGIN.

JOB STEPS

* CAUTION: UNPLUG THE MACHINE *
* BEFORE CLEANING. *

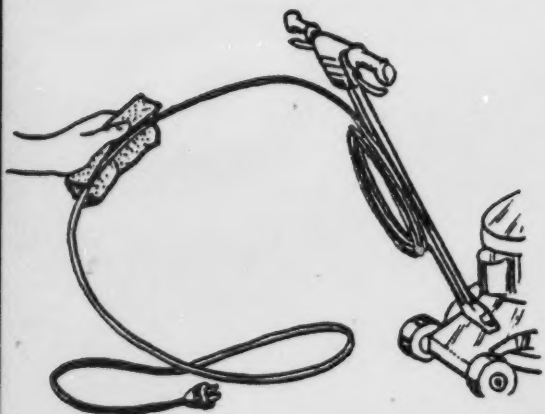
1. GET YOUR EQUIPMENT AND TAKE IT TO WORK AREA.
SCRUB THE OUTSIDE OF THE FLOOR BUFFER WITH ALL PURPOSE CLEANER.



2. WIPE THE MACHINE OFF WITH A CLEAN CLOTH.



3. CLEAN OFF THE CORD WITH A DAMP SPONGE.

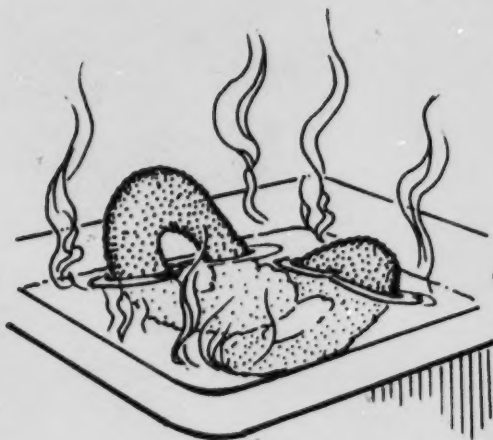


4. COIL THE CORD ON THE HANDLE OF THE MACHINE. DO NOT COIL IT TIGHT.



JOB STEPS

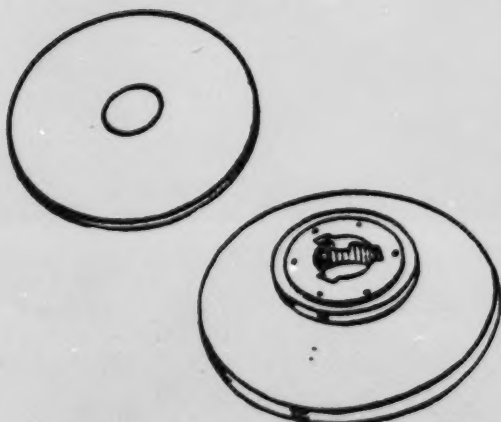
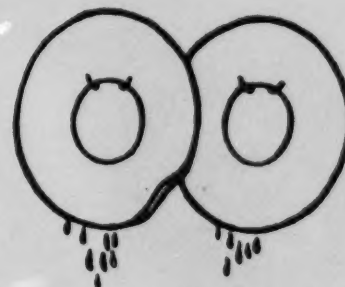
5. CLEAN OUT THE BRISTLES OF THE BUFFER BLOCK.



6. SOAK BUFFER PADS IN A SOLUTION OF ALL PURPOSE CLEANER AND HOT WATER.



7. SCRUB BUFFER PADS TO REMOVE DIRT AND OLD WAX. HANG CLEAN PADS UP TO DRY.



8. DO NOT LEAVE THE BLOCK OR BUFFER PADS ON THE FLOOR MACHINE.

JOB STEPSVACUUM CLEANER MAINTENANCE

** CAUTION: UNPLUG THE VACUUM CLEANER **
** BEFORE CLEANING. **

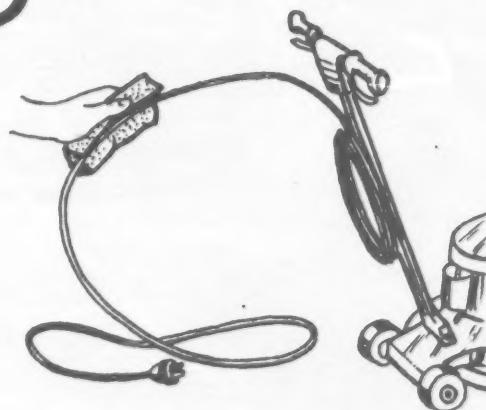
1. CLEAN THE OUTSIDE OF THE VACUUM CLEANER WITH A SPONGE AND ALL PURPOSE CLEANER.



2. DRY THE VACUUM CLEANER WITH A DRY WIPING CLOTH.



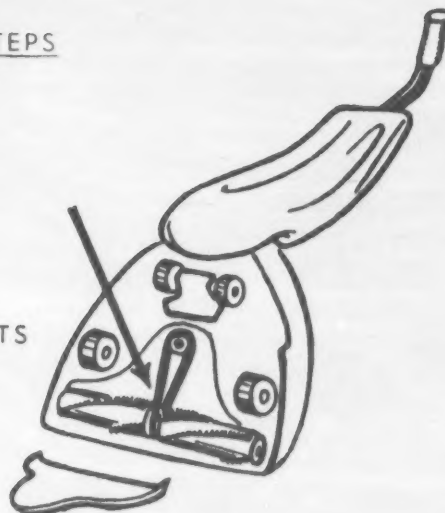
3. CLEAN THE ELECTRIC CORD WITH A DAMP SPONGE.



4. EMPTY THE DIRT BAG IF NEEDED.

JOB STEPS

5. CHECK FOR LOOSE OR WORN BELTS AND BRUSHES.

CLEANING AND MAINTAINING MOP BUCKETS

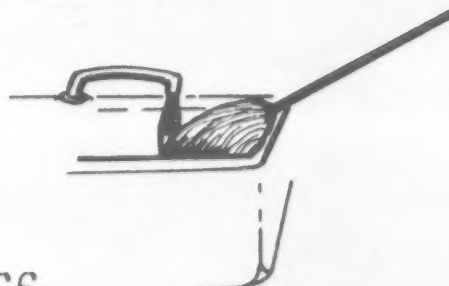
1. CLEAN MOP BUCKET WITH A SPONGE AND ALL PURPOSE CLEANER.



2. RINSE BUCKET AND TURN UPSIDE DOWN TO DRY.

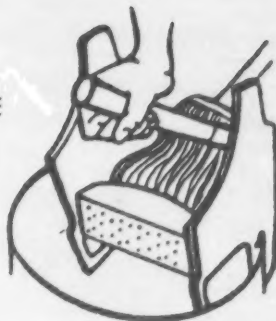
CLEANING AND MAINTAINING MOP HEADS

1. RINSE THE MOP HEAD AFTER EACH USE.



JOB STEPS

2. USE A MOP WRINGER AND GET ALL THE WATER OUT OF THE MOP HEAD.



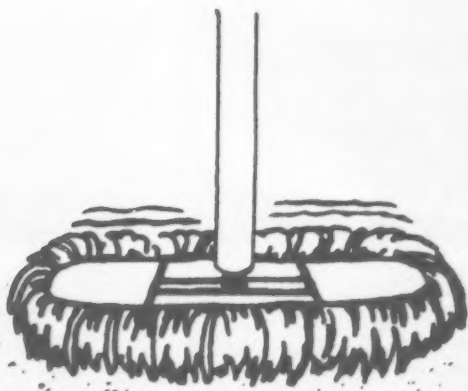
3. SHAKE THE MOP HEAD AND FLUFF IT UP.



4. HANG THE MOP HEAD UPSIDE DOWN TO DRY.

CLEANING AND MAINTAINING DUST MOPS

1. SHAKE OUT LOOSE DUST AND DIRT.

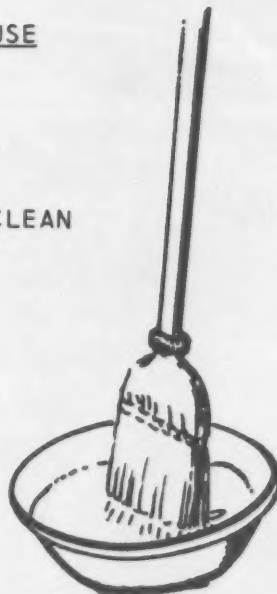


JOB STEPS

2. CHANGE AND WASH DUST MOP HEADS
ONCE A WEEK. (SEE MODULE
2201 01 017 3)

PREPARING CORN BROOMS FOR USE

1. SOAK THE TIP OF THE BROOM IN CLEAN
WATER OVERNIGHT.



2. HANG THE BROOM WITH THE TIP DOWN
TO DRY.

COMMERCIALLY - PROFESSIONALLY, BY A
LAUNDRY.

FLAMMABLE - VERY BURNABLE OR EXPLOSIVE.

JOB STEPS



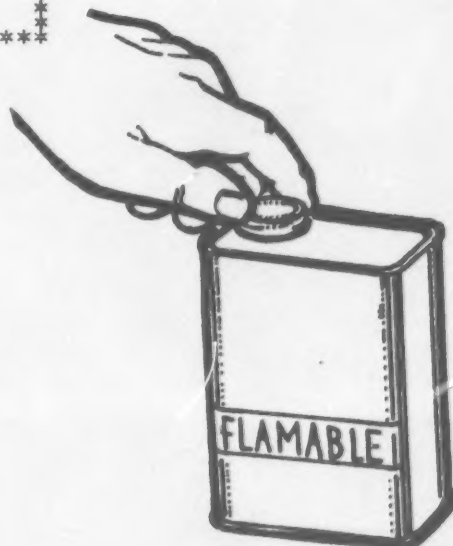
2. WASH THE RAGS IN HOT WATER AND
ALL PURPOSE CLEANER OR GET THEM
COMMERCIALY WASHED.



CARE OF FLAMMABLE LIQUIDS

1. TIGHTEN THE LIDS AFTER EVERY USE.

* CAUTION: TELL YOUR INSTRUCTOR BEFORE *
* USING FLAMMABLE LIQUIDS. *





building maintenance & engineering

unit: POLISHING

capital area career center

module: 2201 02 006 3 date: 5/77 level: I

skill title: METAL POLISHING

developed & written by: DWIGHT SMITH

visuals by: BEVAN SUITS

WORD GUIDE

TARNISH - A STAIN OR SPOT CAUSED
BY OXYGEN IN THE AIR.

GLOSS - SHINE.

PERFORMANCE OBJECTIVEYOU ARE GOING TO LEARN:

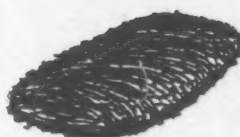
HOW TO CLEAN AND POLISH METAL SURFACES.

AND IN ORDER TO DO THIS YOU WILL NEED:

WIPING CLOTHS



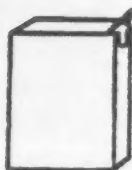
SPONGES



"00" STEEL WOOL



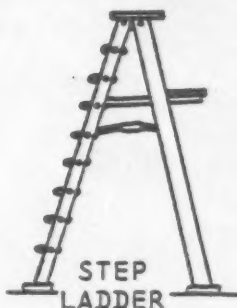
METAL CLEANER
AND POLISH



ALL-PURPOSE
SOAP CLEANER



OIL-BASED
PASTE WAX



STEP
LADDER



SPRAY
BOTTLE



KEROSENE



METAL SURFACES

WE WILL KNOW THAT YOU CAN DO IT WHEN:

- A. YOU KNOW WHICH CLEANER TO USE ON EACH METAL
- B. YOU CLEAN TARNISH AND STAINS FROM THE METAL SURFACES.
- C. YOU LEAVE NO TRACE OF CLEANER.
- D. YOU POLISH THE METAL TO A HIGH GLOSS.

WORD GUIDE

GRIT SOAPS - SOAP WITH SAND-LIKE PARTICLES.

PARAFFIN OIL - WAXY OIL USED TO SEAL METAL.

GRAIN OF THE METAL - LINES OR MARKS WHERE
THE METAL WAS MACHINED.

INFORMATIONWHY DO WE POLISH METAL?

AIR AND RUST ATTACKS, WEAKENS AND TARNISHES METAL. SO, IN ORDER TO KEEP METAL LOOKING GOOD, AND TO HELP IT LAST LONGER, WE KEEP IT CLEANED AND POLISHED.

DON'TS FOR METAL POLISHING:

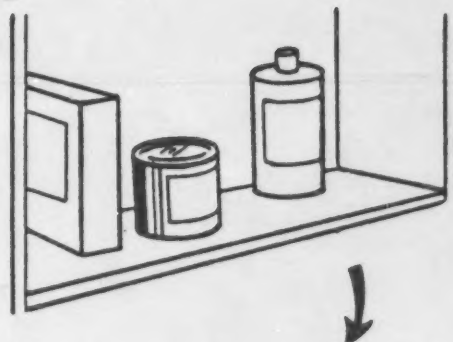
1. DON'T USE GRIT SOAPS ON CHROME SURFACES.
2. DON'T USE HEAVY SCOURING POWDERS. THEY SCRATCH THE METAL.
3. DON'T USE DETERGENT POWDERS ON CHROME, NICKEL AND ALUMINUM.
4. DON'T APPLY CLEANERS AND POLISHES AGAINST THE GRAIN. IF YOU DO, THE METAL WILL NOT SHINE WELL.

THINGS TO KNOW AND REMEMBER:

1. METAL POLISH WORKS BY PUTTING FINE SCRATCHES ON THE METAL.
2. BE CAREFUL WITH METAL POLISHES. IF THE SCRATCHES ARE TOO FINE, THE METAL LOOKS DULL. IF THE SCRATCHES ARE TOO DEEP, THE METAL WILL LOOK DULL.
3. USE METAL POLISHES/CLEANERS TO SHINE COPPER, BRASS AND CHROME.
4. YOU CAN MAKE YOUR OWN METAL POLISH.
 - A. MIX PARAFFIN OIL, FINE SCOURING POWDER AND AMMONIA INTO A FINE PASTE.
 - B. PUT PASTE ON THE METAL, LET IT DRY, THEN POLISH TO A HIGH SHINE.

WORD GUIDEAPPLY - TO PUT ON.JOB STEPS

1. GET YOUR EQUIPMENT AND SUPPLIES AND GO TO THE WORK AREA.

ALUMINUM

1. SLIGHTLY DIRTY:

- A. APPLY SOAP SOLUTION WITH A SPONGE.
- B. RINSE WITH A CLEAN WIPING CLOTH.



2. VERY DIRTY:

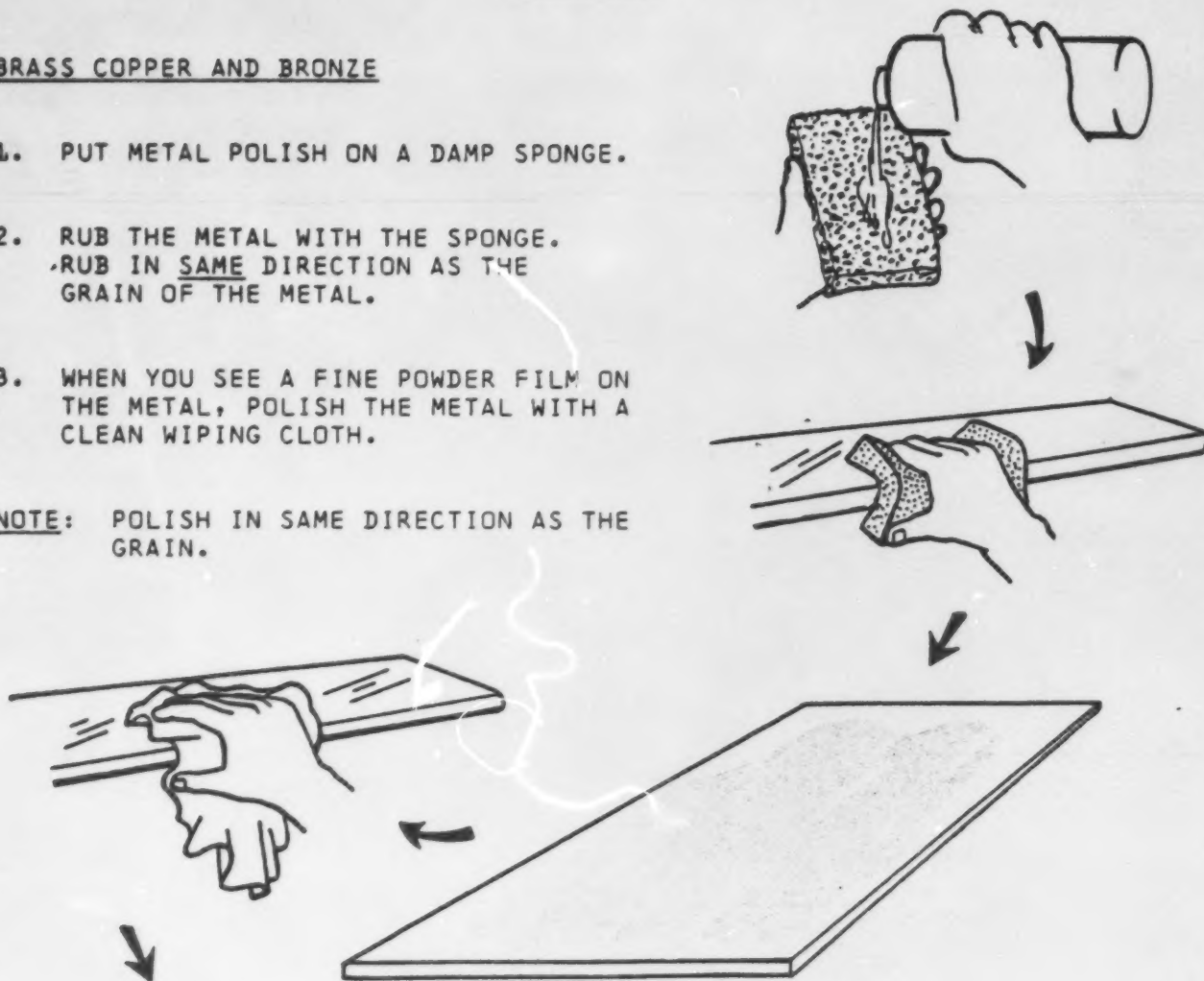
- A. CLEAN WITH "00" STEEL WOOL.
- B. WIPE OFF WITH CLEAN WIPING CLOTH.



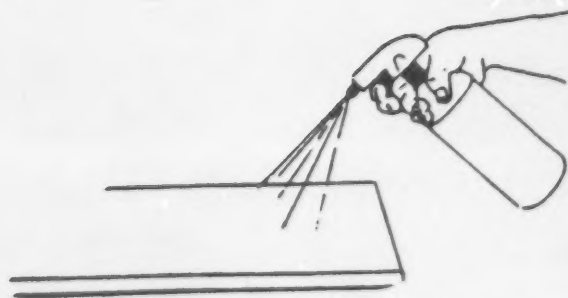
JOB STEPSBRASS COPPER AND BRONZE

1. PUT METAL POLISH ON A DAMP SPONGE.
2. RUB THE METAL WITH THE SPONGE.
RUB IN SAME DIRECTION AS THE GRAIN OF THE METAL.
3. WHEN YOU SEE A FINE POWDER FILM ON THE METAL, POLISH THE METAL WITH A CLEAN WIPING CLOTH.

NOTE: POLISH IN SAME DIRECTION AS THE GRAIN.

CHROME PLATING

1. USING A SPRAY BOTTLE, APPLY SOAP AND WATER SOLUTION TO THE CHROME.



JOB STEPS

2. WIPE THE METAL DRY WITH A CLEAN WIPING CLOTH.



3. USING KEROSENE ON A CLOTH, TAKE OFF ANY GREASE YOU SEE ON THE CHROME.



4. WIPE DRY WITH A CLEAN, DRY CLOTH.

NICKEL PLATING

1. USING A SPRAY BOTTLE, APPLY SOAP AND WATER SOLUTION TO THE METAL.



2. WIPE THE METAL DRY WITH A CLEAN, DRY WIPING CLOTH.
3. CLEAN AND PUT AWAY ALL EQUIPMENT.



building maintenance & engineering

unit: BUILDING MAINTENANCE

capital area career center

module: 2201 02 007 3 date: 4/77 level:

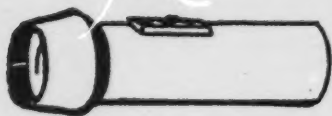
skill title: SECURITY

developed & written by: DEBROAH J. LIVINGSTON-WHITE

visuals by: MARIE GOUGEON AND BEVAN SUITS

WORD GUIDESECURE - TO MAKE SAFE.PERFORMANCE OBJECTIVEYOU ARE GOING TO LEARN:

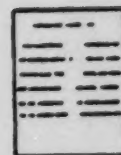
HOW TO SECURE YOUR BUILDING AND EQUIPMENT.

AND IN ORDER TO DO THIS YOU WILL NEED:

FLASHLIGHT



KEYS



LIST OF IMPORTANT NUMBERS

WE WILL KNOW YOU CAN DO IT WHEN:

- YOU ARE ABLE TO
- 1) SECURE YOUR BUILDING
 - 2) TELL YOUR INSTRUCTOR THE IMPORTANT THINGS THAT YOU MUST REMEMBER.

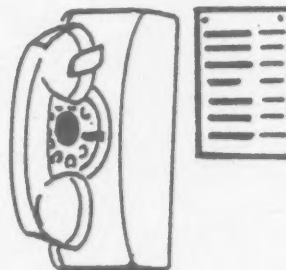
WORD GUIDESENIOR PERSONNEL - NEXT IN CHARGE.JOB STEPS

List	
Name	Address
Phone	Address
Phone	Address
Phone	Address
Phone	Address
Phone	Address
Phone	Address
Phone	Address
Phone	Address

1. MAKE A LIST OF ALL IMPORTANT TELEPHONE NUMBERS:

- A) FIRE DEPARTMENT
- B) POLICE DEPARTMENT
- C) AMBULANCE SERVICE
- D) SUPERVISOR
- E) SENIOR PERSONNEL

2. PUT ONE COPY OF YOUR LIST NEAR THE TELEPHONE YOU USE MOST. PUT ONE COPY OF YOUR LIST IN YOUR WALLET.



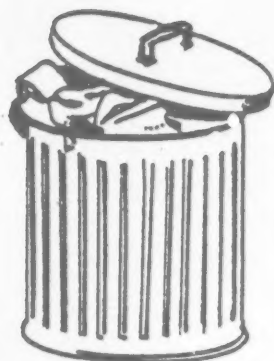
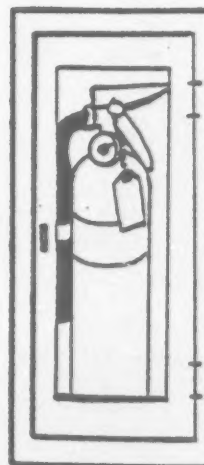
3. WALK AROUND THE INSIDE OF YOUR BUILDING. COUNT THE FIRE ALARM BOXES YOU FIND. READ THE INSTRUCTIONS ON THE BOX THAT TELL HOW TO USE THE FIRE ALARM BOXES.



4. ASK YOUR TEACHER TO SHOW YOU THE FIRE ALARM SYSTEMS OUTSIDE THE BUILDING.

JOB STEPS

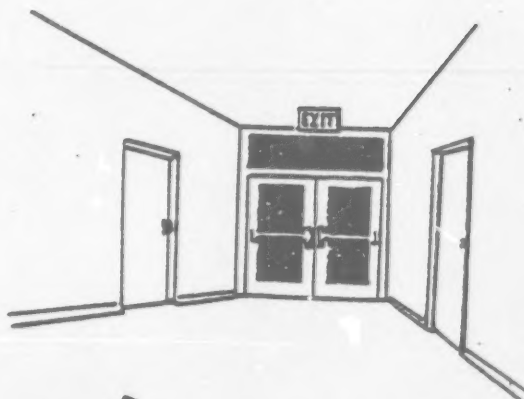
5. FIND ALL FIRE EXTINGUISHERS. SEE MODULE 2201 02 015 3 FOR USE AND MAINTENANCE OF FIRE EQUIPMENT.



6. BE SURE ALL DIRTY, GREASY RAGS ARE IN METAL CANS.



7. ALL HALLS, EMERGENCY EXITS, AND FIRE EXTINGUISHERS MUST BE KEPT CLEAR. CHECK YOUR BUILDING. TELL YOUR INSTRUCTOR IF YOU FIND A HALL, EMERGENCY EXIT, OR FIRE EXTINGUISHER THAT IS NOT CLEAR.



8. ASK YOUR INSTRUCTOR WHERE FIRE BLANKETS ARE KEPT. GO THERE. IF A PERSON'S CLOTHING IS ON FIRE, ROLL THEM IN A FIRE BLANKET.

JOB STEPS

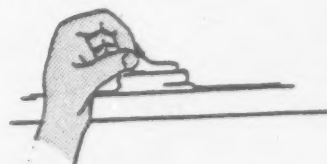
9. ASK YOUR INSTRUCTOR TO SHOW YOU HOW TO LOCK UP YOUR BUILDING AT CLOSING TIME.

- A) ALL PEOPLE MUST BE OUT.
- B) ALL HAZARDOUS AREAS MUST BE LOCKED.
- C) ALL DOORS AND FENCE GATES MUST BE LOCKED.
- D) DOUBLE CHECK YOUR WORK.

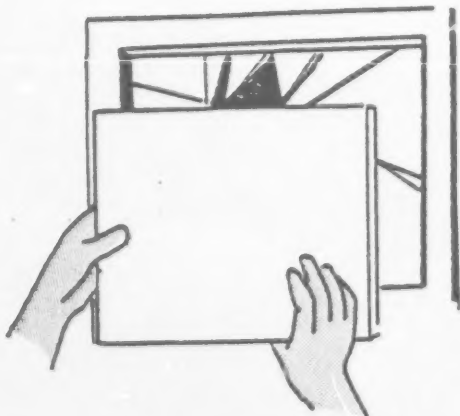
PRACTICE LOCKING ALL DOORS.



10. AT CLOSING TIME, ALL WINDOWS MUST BE LOCKED. DOUBLE CHECK FIRST FLOOR WINDOWS.



11. LOCK ALL WINDOWS AT THE WARNING OF A HIGH WIND STORM.



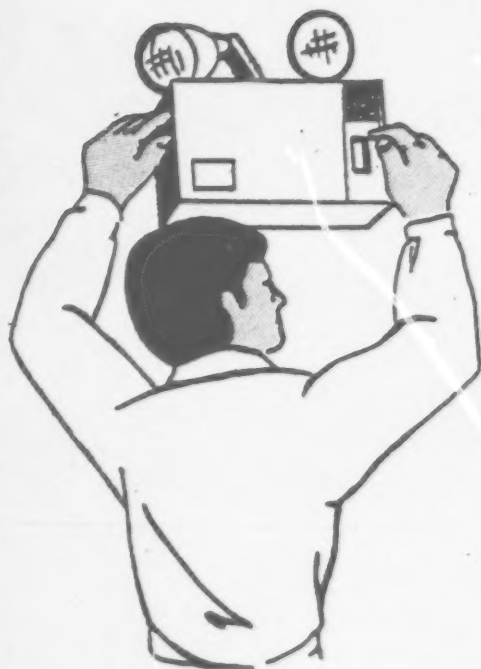
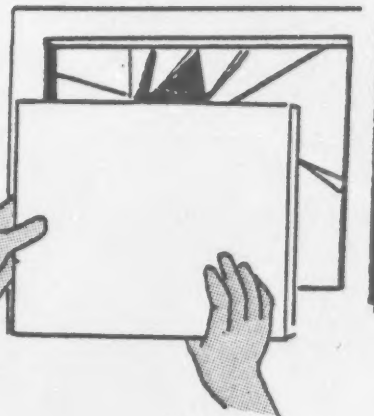
12. BROKEN WINDOWS SHOULD BE COVERED RIGHT AWAY.

13. TO COVER A BROKEN WINDOW, MEASURE THE AREA BROKEN. CUT COVERING FOR WINDOW FROM WOOD OR CARDBOARD.

JOB STEPS

14. MAKE A BROKEN WINDOW REPORT:

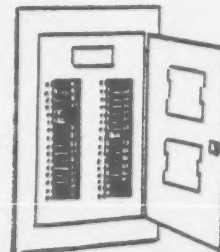
- A) PRETEND THAT A WINDOW IS BROKEN.
- B) MAKE A COVER.
- C) SHOW YOUR BROKEN WINDOW REPORT, THE WINDOW, AND THE COVER TO YOUR INSTRUCTOR.



15. TURN OFF LIGHTS WHEN NOT IN USE. KNOW WHICH LIGHTS ARE SECURITY LIGHTS. LEAVE THESE ON AT ALL TIMES.



16. ASK YOUR INSTRUCTOR WHERE THE MAIN SWITCH AND BREAKER BOXES ARE.



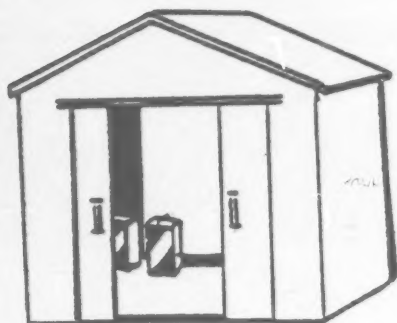
17. READ THE MODULE ON CLEANING AND CARE OF EQUIPMENT, 2201 02 005 3. THEN, CLEAN AND PUT AWAY ALL TOOLS AND EQUIPMENT.



JOB STEPSWORD GUIDE

HOT LINE - AN ELECTRIC WIRE THAT IS PLUGGED IN OR CONNECTED.

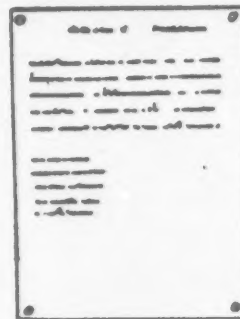
INSPECT - LOOK OVER CLOSELY.



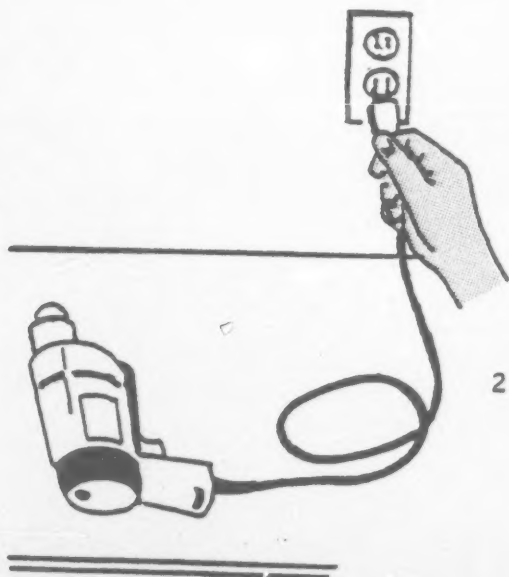
18. STORE GASOLINE AND OTHER FLAMABLE MATERIALS IN METAL CANS. PUT LID ON. CANS SHOULD BE PUT ON A CEMENT FLOOR IN A COOL ROOM.

19. READ THE PRINTOUT IN THE OFFICE ABOUT ELECTRICAL WIRING AND EQUIPMENT.

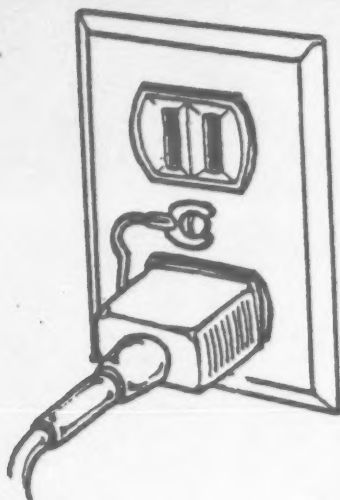
NOTE: DO NOT HANDLE ANY ELECTRICAL WIRING WITHOUT YOUR INSTRUCTOR'S HELP.



20. INSPECT LEAD-IN WIRES TO ELECTRICAL EQUIPMENT. LOOK FOR BARE WIRES. LOOK FOR BAD CONNECTIONS. SHOW YOUR INSTRUCTOR ANY BAD WIRES OR BAD CONNECTIONS YOU FIND.



21. UNPLUG ANY ELECTRICAL TOOLS YOU FIND PLUGGED INTO A HOT LINE.



JOB STEPS

22. CHECK TO SEE THAT ALL ELECTRICAL EQUIPMENT IS GROUNDED BEFORE USING IT. ASK YOUR INSTRUCTOR TO SHOW YOU HOW ELECTRICAL EQUIPMENT IS GROUNDED.

23. AT CLOSING TIME, TURN OFF ALL EQUIPMENT THAT IS NOT BEING USED.

TURN OFF:

TYPÉWRITERS

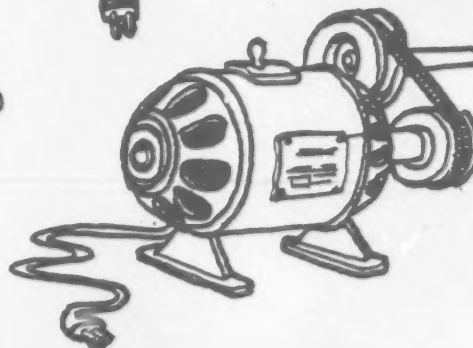
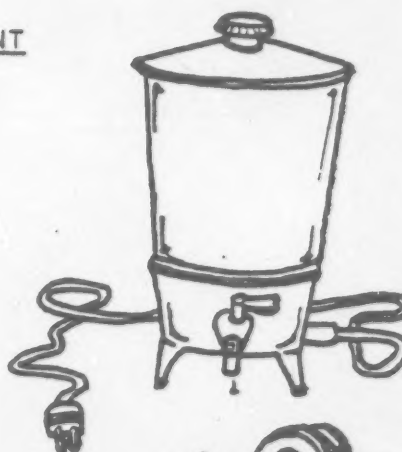
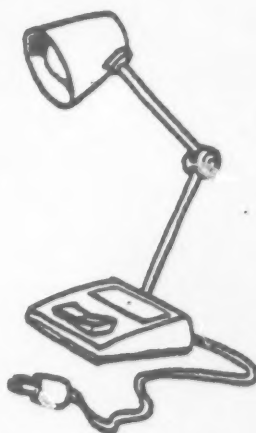
MOTORS

COFFEE POTS

RADIOS

TV'S

LIGHTS



24. ASK YOUR INSTRUCTOR WHO CAN BE IN YOUR BUILDING AFTER CLOSING TIME. WRITE THESE NAMES ON AN "AUTHORIZED PERSON'S" LIST.

"AUTHORIZED PERSON'S"

1. _____
2. _____
3. _____

JOB STEPS

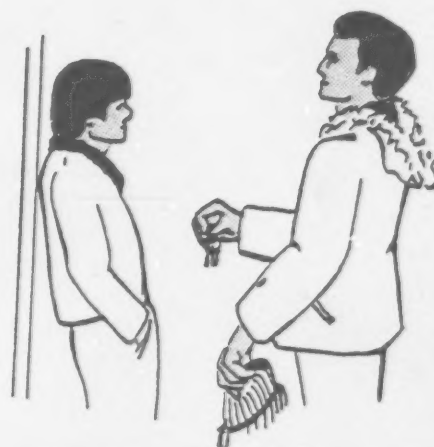
25. KEEP YOUR "AUTHORIZED PERSON'S" LIST IN YOUR WALLET. LEARN THESE NAMES.



26. IF YOU SEE A PERSON WHO DOES NOT BELONG IN YOUR BUILDING AFTER CLOSING, ASK TO SEE HIS/HER PERMIT. BE POLITE.



27. IF THE PERSON DOES NOT HAVE A PERMIT, ASK HIM/HER TO COME TO THE OFFICE WITH YOU.



28. CALL THE PERSON IN CHARGE. FIND HIS/HER NUMBER ON YOUR "IMPORTANT TELEPHONE NUMBERS" LIST. (THIS LIST SHOULD BE IN YOUR WALLET.)

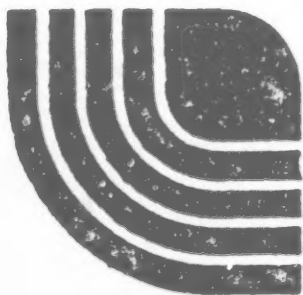
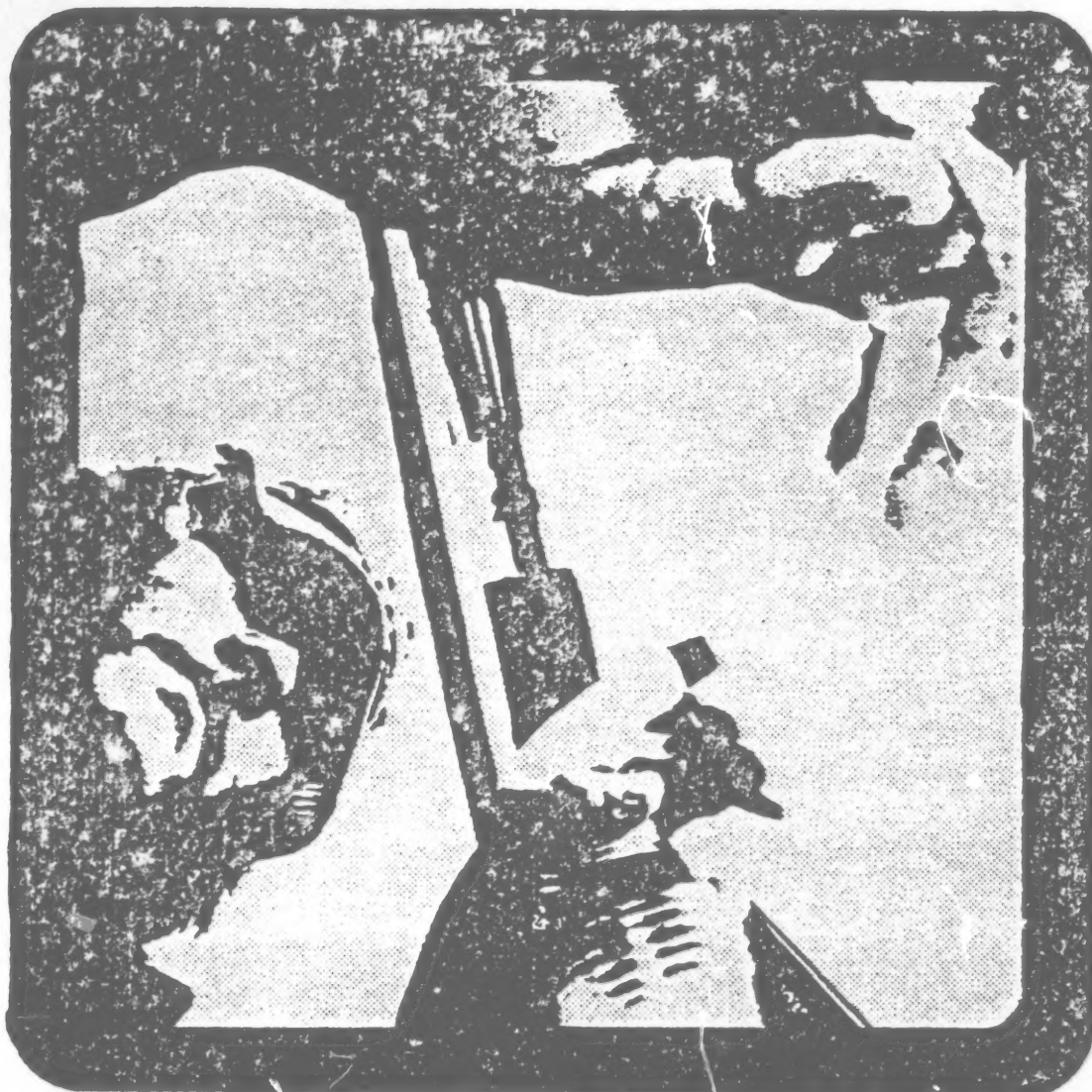
WORD GUIDE

VANDALISM - BREAKING IN OR DESTROYING THINGS.

JOB STEPS

29. IF SOMEONE HAS TRIED TO BREAK INTO OR VANDALIZE YOUR BUILDING, CALL THE PERSON IN CHARGE. YOUR SUPERVISOR WILL CALL THE POLICE IF THEY ARE NEEDED.

30. TELL YOUR INSTRUCTOR ALL OF THE IMPORTANT THINGS YOU MUST REMEMBER TO SECURE YOUR BUILDING.



building maintenance & engineering

unit: GLASS CARE

capital area career center

module: 2201 02 008 3 date: 5/77 level:

skill title: THE REMOVING, CUTTING, AND REPLACING OF BROKEN GLASS

developed & written by: DWIGHT SMITH

visuals by: 187

WORD GUIDE

GLAZIER POINTS - USED TO HOLD THE GLASS WHILE YOU PUT IT IN.

SASH - THE WINDOW FRAME WHERE THE GLASS GOES.

PERFORMANCE OBJECTIVEYOU ARE GOING TO LEARN:

HOW TO REMOVE, CUT, AND REPLACE BROKEN GLASS.

AND IN ORDER TO DO THIS YOU WILL NEED:

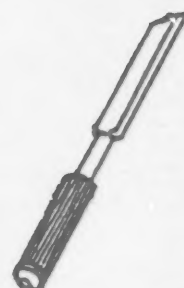
REPLACEMENT
GLASS



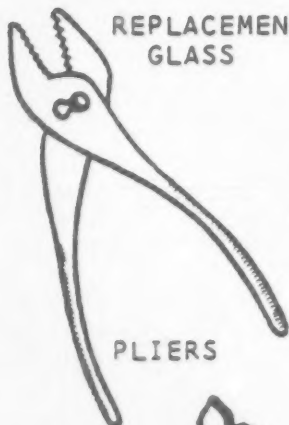
GLAZING COMPOUND



PUTTY KNIFE



WOOD CHISEL



PLIERS



PENCIL & PAPER



SCREWDRIVER



STRAIGHT EDGE



GLAZIER POINTS



SASH, FRAME, OR DOOR

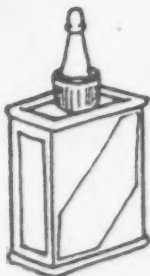


TRASH CONTAINER

SAFETY GLASSES

PERFORMANCE OBJECTIVE

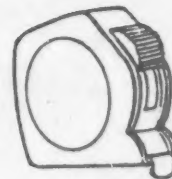
GLASS CUTTER



LIGHT OIL



GLASS CLEANER

TAPE
MEASURE

HAMMER



GLOVES FOR BROKEN GLASS



CLEAN WIPING CLOTHS

WE WILL KNOW YOU CAN DO IT WHEN:

1. YOU HAVE PUT THE GLAZIER POINTS INTO THE FRAME SO THAT THEY HOLD THE GLASS TIGHTLY.
2. YOU HAVE SPREAD GLAZING COMPOUND EVENLY SMOOTHLY AND TIGHTLY AROUND THE GLASS.
3. YOU HAVE CLEANED THE GLASS SO THAT IT SHOWS NO SMUDGES.

WORD GUIDE

THERMOPANE - 2 SHEETS OF GLASS
WITH AN AIR SPACE BETWEEN THEM.

INFORMATION

WHEN GLASS BREAKS IT SHOULD BE REPLACED RIGHT AWAY. CRACKED OR BROKEN GLASS CAN CUT PEOPLE, LET IN COLD AIR IN THE WINTER, AND MAKE A BUILDING LOOK RUN-DOWN.

MANY PUBLIC BUILDING SAFETY CODES REQUIRE DOUBLE-STRENGTH OR THERMOPANE GLASS.

BE SURE TO ASK YOUR INSTRUCTOR, IF YOU HAVE ANY QUESTIONS.

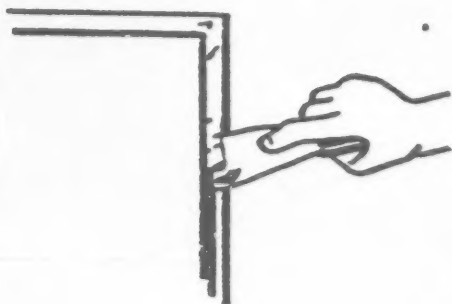
JOB STEPSWORD GUIDE

RABBET - THE EDGE OR LIP OF A
SASH THAT HOLDS THE GLASS.

PART I: REMOVE THE BROKEN GLASS.

1. TAKE OUT ALL THE LOOSE GLASS.
SAVE ANY BIG PIECES THAT CAN BE
USED FOR SMALLER WINDOWS.

*
* CAUTION: WEAR GLOVES WHEN
* REMOVING THE BROKEN GLASS.
* BE SURE TO WEAR SAFETY GLASSES.

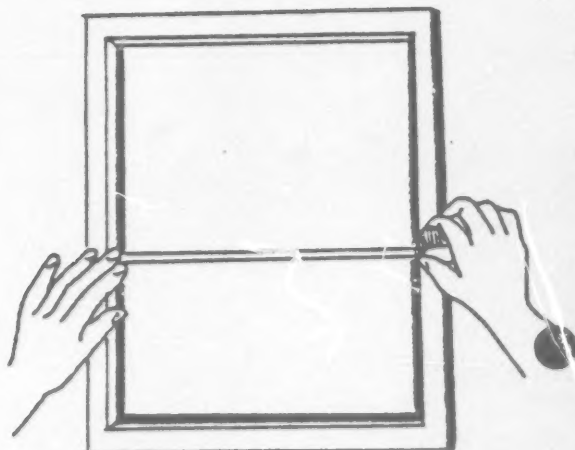


2. USING A PUTTY KNIFE OR WOOD CHISEL
AND HAMMER, TAKE OUT ALL THE GLAZING
COMPOUND OR PUTTY IN THE WINDOW
FRAME.

NOTE: BE SURE THE RABBET IS CLEAN
SO THE GLASS WILL LIE FLAT.



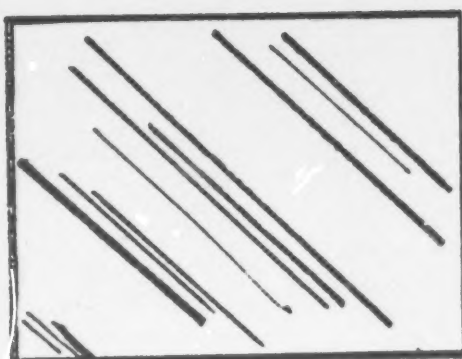
3. USING THE TAPE MEASURE, MEASURE
THE SIZE OF THE INNER OPENING OF
THE SASH. WRITE DOWN THE SIZE.



JOB STEPS

PART II: CUTTING THE GLASS.

1. CLEAN THE GLASS



2. PUT THE GLASS ON A FLAT SURFACE.



3. DIP THE GLASS-CUTTER WHEEL INTO THE LIGHT OIL.



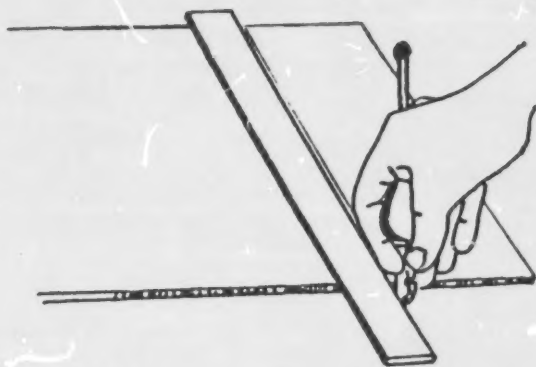
4. HOLD THE CUTTER BETWEEN YOUR FIRST AND SECOND FINGERS LIKE THIS:



5. PRACTICE 2 OR 3 CUTS ON SCRAP GLASS.

JOB STEPS

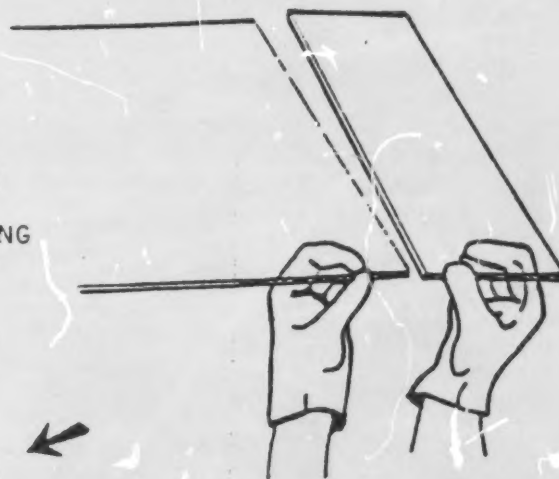
6. MEASURE THE GLASS $\frac{1}{8}$ INCH SMALLER THAN THE SIZE YOU WROTE DOWN IN PART ONE. MARK ON THE GLASS WITH THE CUTTER WHEEL.



7. USING THE STRAIGHT-EDGE CUT A STRAIGHT LINE. START $\frac{1}{16}$ INCH FROM THE FAR EDGE OF THE GLASS AND CUT TOWARDS YOU.

NOTE: YOU DO NOT NEED TO PRESS HARD ON THE GLASS CUTTER. GO ALL THE WAY IN ONE CUT. LET THE WHEEL GO ON PAST THE EDGE OF THE GLASS.

8. WEARING GLOVES, HOLD THE GLASS WITH BOTH HANDS. HOLDING YOUR FIRST FINGER AND THUMB TOGETHER ON EACH SIDE OF THE CUT, BEND THE GLASS SO THAT IT BREAKS ALONG THE CUT.

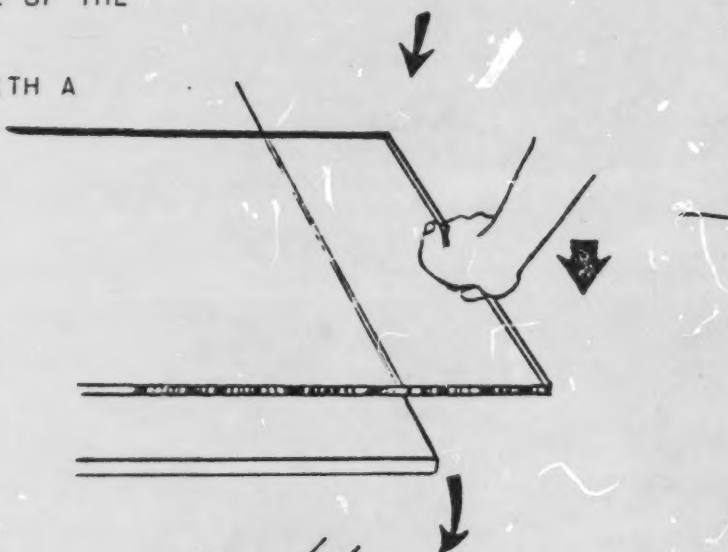
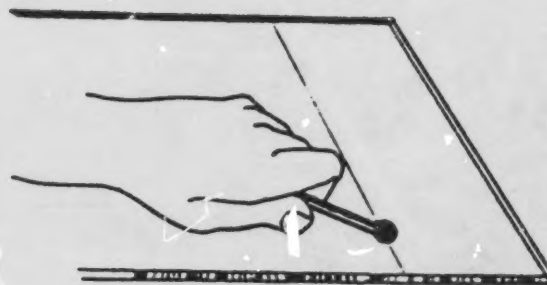


9. USING THE NOTCHES ON THE GLASS-CUTTER, BREAK OFF ANY CHUNKS OF GLASS THAT DID NOT BREAK OFF CLEANLY BEFORE.

JOB STEPS

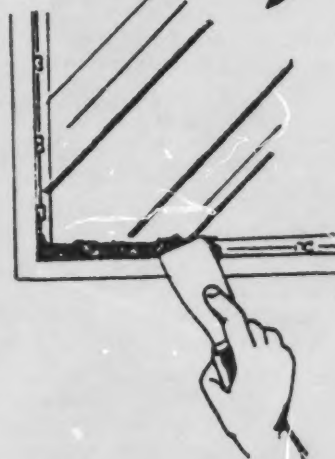
10. ANOTHER WAY OF CUTTING THE GLASS IS:

- A. TAP ALONG THE CUT WITH THE BALL END OF THE CUTTER.
- B. WHEN A CRACK GOES THE WHOLE LENGTH OF THE CUT, LINE UP THE CUT WITH THE EDGE OF THE TABLE.
- C. SNAP OFF THE GLASS WITH A FAST, DOWNWARD PUSH.

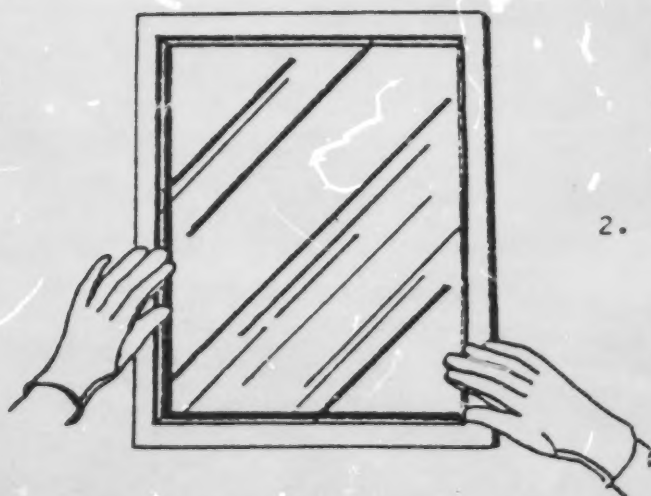


PART III: REPLACE THE GLASS.

1. USING THE PUTTY KNIFE, SPREAD A THIN LAYER OF GLAZING COMPOUND AROUND THE RABBET. THIS SEALS THE GLASS ON THE BACK-SIDE.



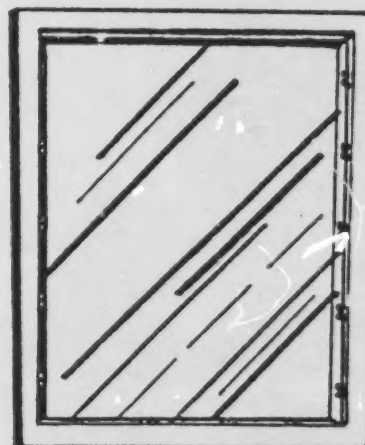
2. PUT THE GLASS DOWN ON THE RABBET AND PRESS IT GENTLY.



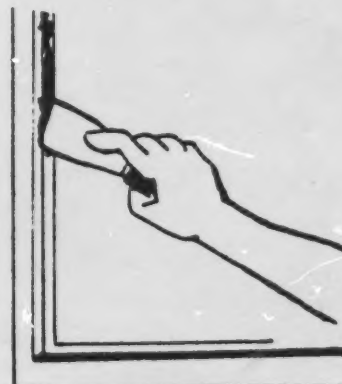
NOTE: BE CAREFUL NOT TO RUB ALONG THE EDGE OF THE GLASS BECAUSE IT MIGHT CUT YOU.

JOB STEPS

3. IF THE SASH IS WOOD, USE GLAZIER'S POINTS TO HOLD IN THE GLASS. PUT THEM IN EVERY 4 INCHES ALONG THE GLASS.



4. USING THE PUTTY KNIFE, SPREAD GLAZING COMPOUND AROUND THE GLASS EDGE ON THE SASH.



5. SMOOTH IT OUT TO FILL IN FROM THE GLASS TO THE TOP OF THE RABBET.



6. USING A SOFT CLOTH, REMOVE ANY EXCESS GLAZING COMPOUND.

NOTE: DO NOT TOUCH THE PUTTY BECAUSE IT IS STILL SOFT.

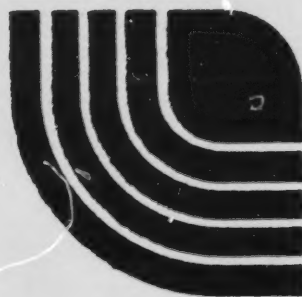
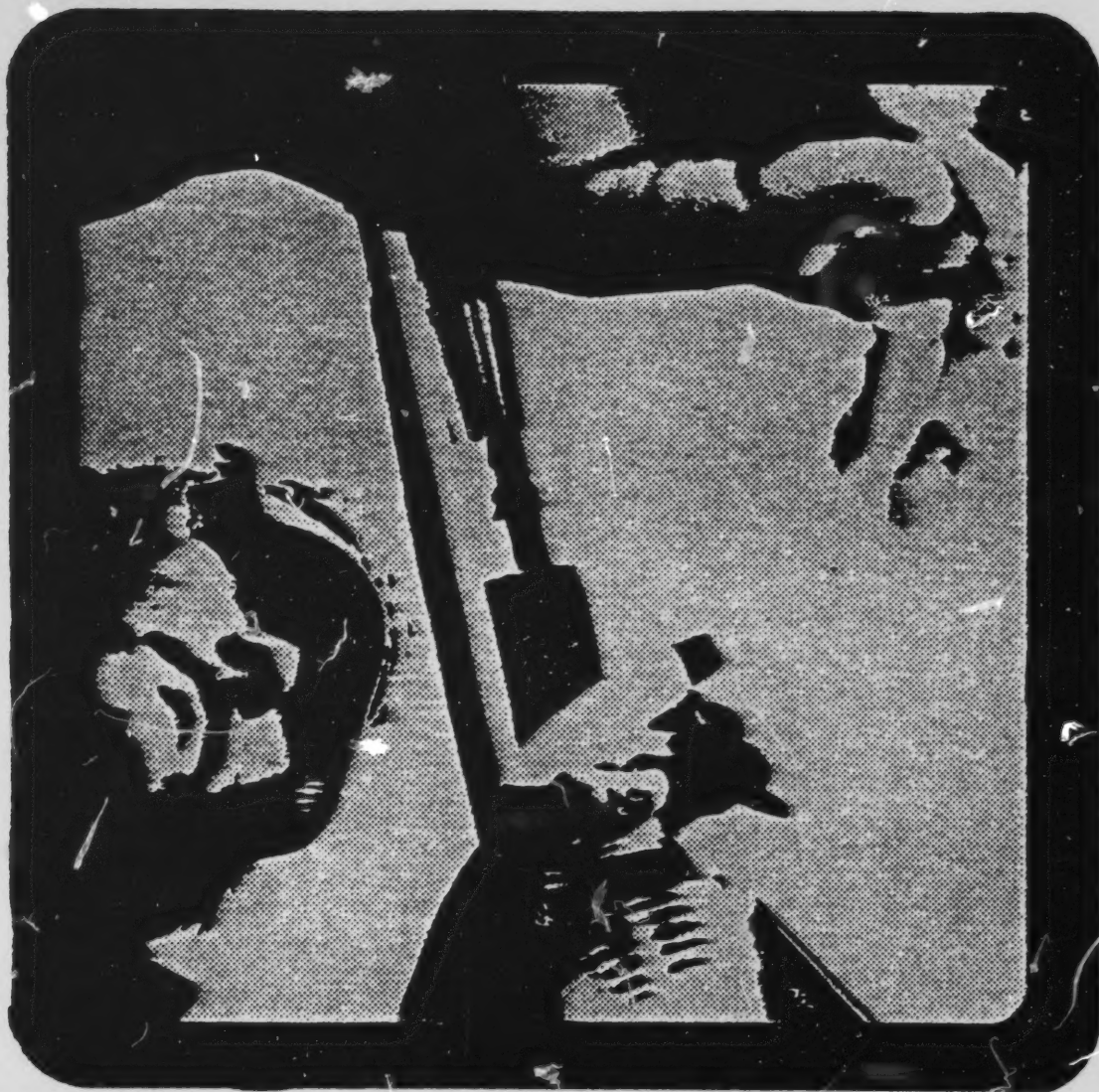
JOB STEPS

7. PUT THE WINDOW SASH BACK INTO THE FRAME.

NOTE: THE GLAZING COMPOUND WILL NEVER HARDEN ALL THE WAY, SO BE CAREFUL NOT TO TOUCH IT.



8. GOOD WORK. YOU HAVE "GLAZED" A WINDOW.



building maintenance & engineering

unit: DAMAGED WALLS

capital area career center

module: 2201 02 009 3 date: 5/77 level:

skill title: REPAIR DAMAGED WALLS

developed & written by: DEBRA CONSTANTINI

visuals by: GLEN COOLEY

WORD GUIDESHELLAC - WOOD FILLER AND FINISHPERFORMANCE OBJECTIVEYOU ARE GOING TO LEARN:

HOW TO REPAIR A DAMAGED WALL.

AND IN ORDER TO DO THIS YOU WILL NEED:

SAND BLOCK AND SANDPAPER

A DAMAGED PART OF A WALL

PLASTER

DRY WALL

PAIL

SPACKLING PUTTY

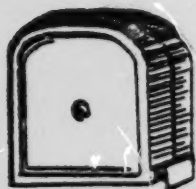
PATCHING PLASTER

HAMMER

PENCIL AND PAD

SPONGE

STIRRING STICK



TAPE MEASURE



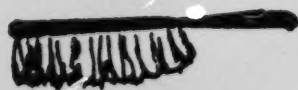
PLASTER SPATULA



DRY WALL TACKS (NAILS)



STEEL TROWEL



BENCH BRUSH



HAND SAW 198



PAINT SHELLAC BRUSH

WE WILL KNOW YOU CAN DO THIS WHEN:

1. YOU REPAIR THE WALL SO THERE ARE NO BUMPS OR SCRATCHES.
2. NO PAPER TAPE SHOWS THROUGH THE PLASTER.

JOB STEPS

1. CHECK DAMAGED AREA TO SEE WHAT KIND OF WALL YOU WILL REPAIR:

- A. DRY WALL
- B. PLASTER WALL
- C. PLYWOOD
- D. PANELING



2. DRY WALLS (PLASTER BOARD)

- A. GET ALL EQUIPMENT NEEDED TO REPAIR DRY WALLS AND GO TO WORK AREA.



- B. USING A PLASTER SPATULA, CUT AWAY SOME OF DAMAGED DRY WALL. THEN, EXAMINE AREA FOR ANY ELECTRICAL WIRING.



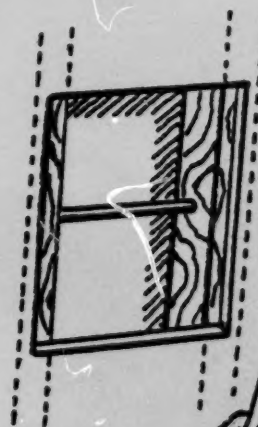
JOB STEPSWORD GUIDE

STUD - THICK BOARDS, COVERED WITH PLASTER, FORMING THE FRAME OF A WALL.

- C. IF THERE IS ELECTRICAL WIRING, TURN OFF CURRENT.



- D. AFTER YOU'VE TURNED OFF CURRENT, CONTINUE CUTTING AWAY, CAREFULLY.



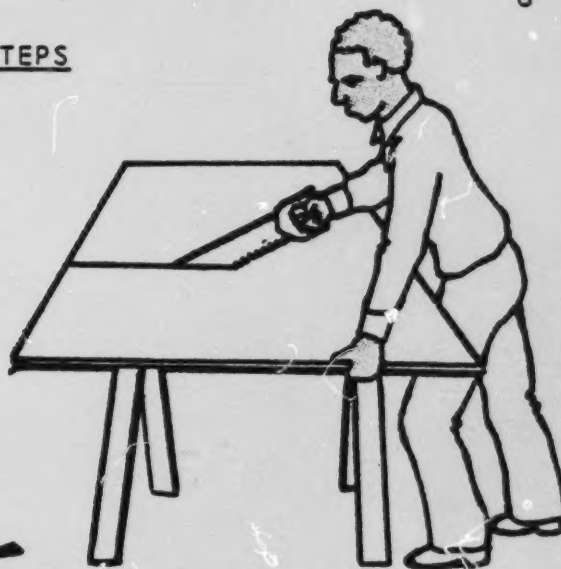
- E. USING A MEASURING TAPE, MEASURE THE AREA YOU WILL REPLACE. THE NEW PIECE SHOULD OVERLAP HALFWAY ONTO THE STUDS FOUND ON EACH SIDE.

NOTE: BE SURE THERE ARE NO NAILS IN THE STUDS.



JOB STEPS

- F. USING HANDSAW, CUT A NEW
PIECE OF DRY WALL.



- G. PREPARE JOINT COMPOUND
(POWDER):

1. PUT 1/2 PINT OF WARM
WATER INTO CLEAN PAIL.



2. ADD ONE POUND OF JOINT
COMPOUND TO WATER.



3. USING STIRRING STICK,
MIX COMPOUND INTO A
SMOOTH PASTE.

JOB STEPS

4. LET MIXTURE SET FOR 30 MINUTES.
5. STIR MIXTURE AGAIN.



6. TO KEEP A SMOOTH PASTE, ADD WATER TO COMPOUND AS NEEDED.

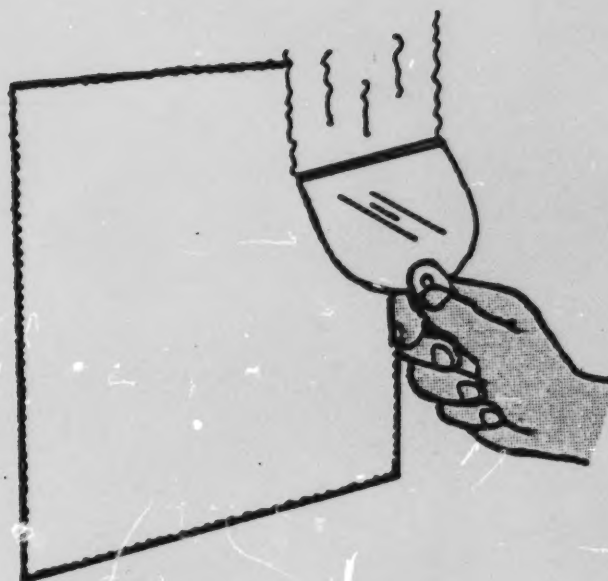
H. APPLY COMPOUND AND DRY WALL TAPE:

1. FIT NEW PIECE INTO DAMAGED AREA; HOLDING IN PLACE WITH NAILS.



JOB STEPS

2. PUT COMPOUND PASTE ON SEAMS OF NEW AND OLD DRY WALL. COVER THE JOINT 2 INCHES ON EACH SIDE.



3. MEASURE EACH SEAM/JOINT YOU WILL COVER.

4. CUT DRY WALL TAPE THE RIGHT LENGTH OF EACH SEAM/JOINT.

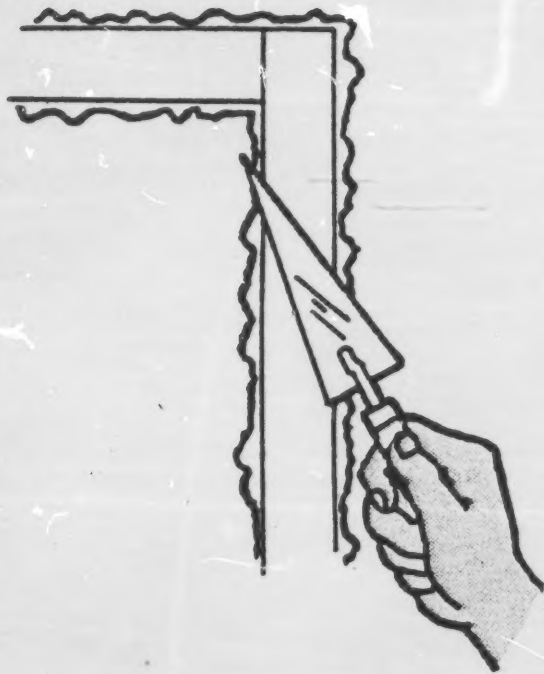


JOB STEPS

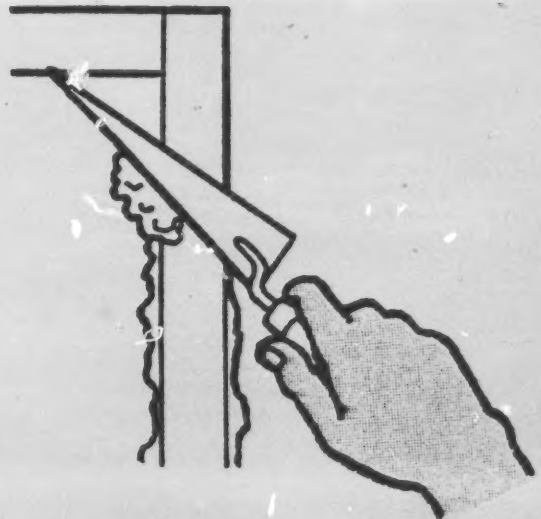
5. SOAK DRY WALL TAPE
LIGHTLY IN CLEAR WATER.



6. USING A PRESSING (STEEL)
TROWEL IN ONE HAND,
PRESS TAPE INTO COMPOUND
ON THE SEAMS OR JOINTS.

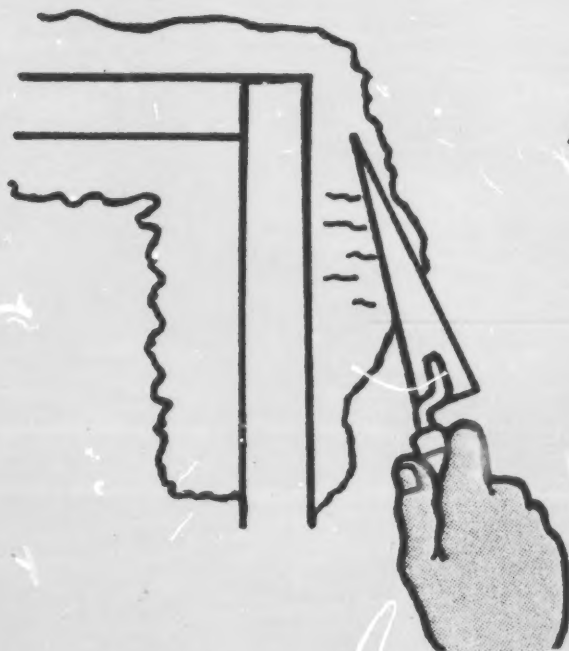


7. TROWEL EVENLY AND
SMOOTHLY, SCRAPING OFF
EXTRA COMPOUND.



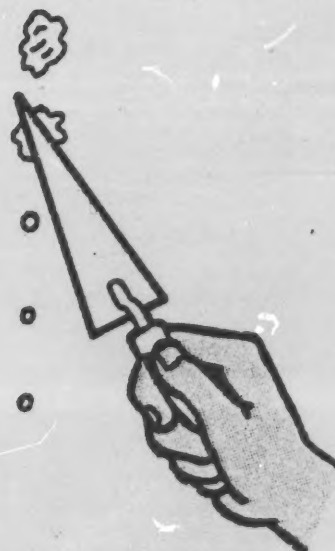
JOB STEPSWORD GUIDEFEATHER - SEE ILLUSTRATION.

8. SPOT-CHECK NAIL HEADS
AND FILL IN WITH
COMPOUND AS NEEDED.



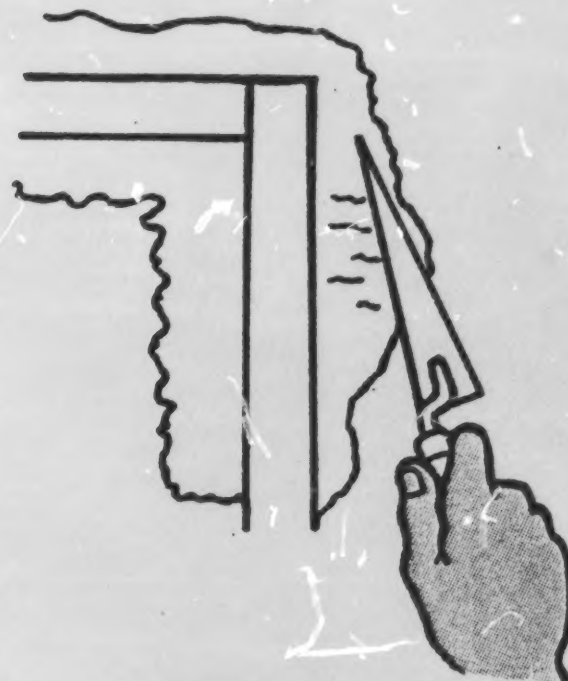
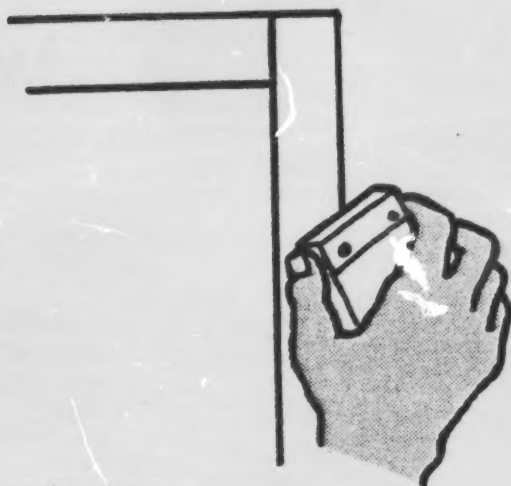
9. IF COMPOUND HAS DRIED
COMPLETELY, APPLY A
THIN COAT OF COMPOUND.
THEN, FEATHER IT OUT
3 OR 4 INCHES ON BOTH
SIDES OF CRACK.

10. APPLY SECOND COAT TO
NAIL HEADS.



JOB STEPS

11. WHEN COMPOUND IS DRY, APPLY A THIN COAT AND FEATHER OUT TO 8 INCHES OR 10 INCHES ON BOTH SIDES OF SEAM/CRACK. THEN, APPLY 3RD COAT TO NAIL HEAD.



12. WHEN COMPOUND IS COMPLETELY DRY, SAND TO SMOOTH AND EVEN SURFACE.

NOTE: WHEN SANDING TAPED AREA, DON'T SCRATCH OR SCUFF SURFACE PAPER OF WALL BOARD.

3. PLASTERED WALLS

A. USE SPACKLING PUTTY:

1. IN HAIRLINE CRACKS.
2. IN CRACKS UP TO 1/8 INCH WIDE.
3. IN NAIL AND SCREW HOLES WHERE PLASTER HAS NOT BROKEN AWAY.
4. FOR NICKS AND CRACKS AROUND TRIMMING.



NOTE: CAREFULLY, FOLLOW INSTRUCTIONS ON SPACKLING PUTTY CONTAINER.

JOB STEPS**B. PATCHING PLASTER**

NOTE: USE FOR CRACKS OVER 1/8 INCH WIDE UP TO 1 SQUARE FOOT.



1. USING A PLASTER SPATULA, UNDERCUT EDGES OF CRACKS AND SMALL PATCHES. MAKE CRACKS WIDER AT BOTTOM THAN AT TOP.



2. BRUSH AWAY ALL LOOSE PARTICLES.



3. USING A BRUSH, SOAK OLD PLASTER AREA WITH WATER.

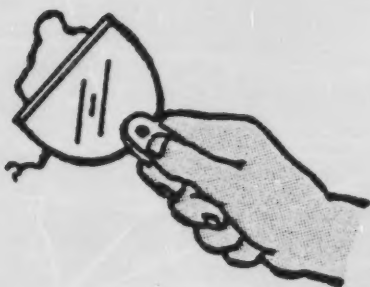
NOTE: WATERING PREVENTS RAPID LOSS OF MOISTURE FROM PATCHING PLASTER.



JOB STEPS

4. MIX PATCHING PLASTER WITH WATER. STIR UNTIL PASTE IS SMOOTH.

NOTE: DO NOT MIX MORE THAN NEEDED. PATCHING PLASTER WILL HARDEN IN 10 TO 30 MINUTES.

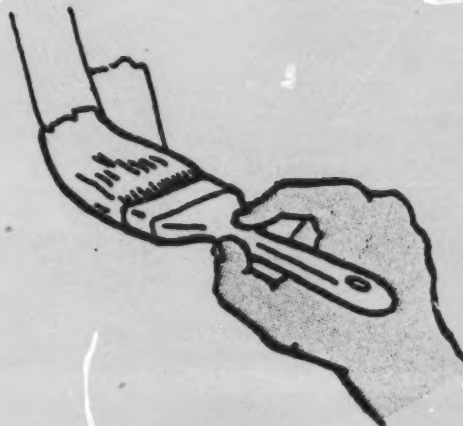


5. USING PUTTY KNIFE, FIRMLY PRESS PLASTER AGAINST UNDER-EDGES OF CRACK.

6. CONTINUE APPLYING MIX UNTIL REPAIR AREA MATCHES UN-DAMAGED WALL FINISH.

7. USING A SMALL BRUSH, APPLY SHELLAC TO REPAIR AREA.

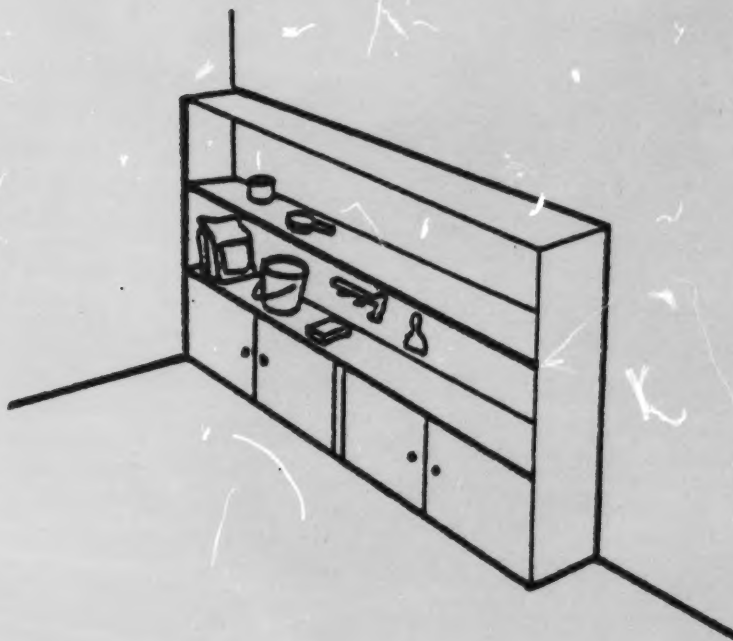
NOTE: SHELLAC SEALS AREA AND PREVENTS DULL SPOTTING WHEN PAINTED.



JOB STEPS

4. TO REPAIR OTHER TYPES OF WALLS,
SEE INSTRUCTION MANUAL OR
INSTRUCTOR.

5. PUT AWAY ALL EQUIPMENT.





building maintenance & engineering

unit: GENERAL MAINTENANCE TASK

capital area career center

module: 2201 02 011 3 date: 5/77 level:

skill title: INTERIOR PAINTING

developed & written by: DEBORAH WHITE

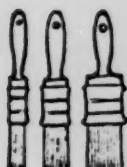
visuals by: 211

WORD GUIDEINTERIOR - INSIDE, INDOORS.PERFORMANCE OBJECTIVEYOU ARE GOING TO LEARN:

HOW TO PAINT INTERIOR SURFACES.

AND IN ORDER TO DO THIS YOU WILL NEED:

PAIL

PAINT
BRUSH

PAINT

PRIMER
(IF NEEDED)PUTTY AND
PUTTY KNIFE

RAGS

FILLER
(PUTTY, PLASTER, ETC.)



SCRAPER



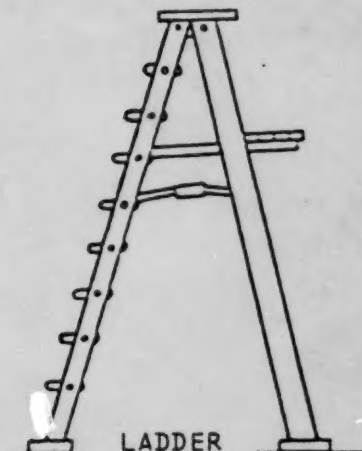
CHECKLIST AND
PENCIL



PAINT ROLLER,
PAN AND HANDLE



ROLLER AND
BRUSH CLEANER



LADDER



CAUTION
SIGNS



DROP
CLOTH



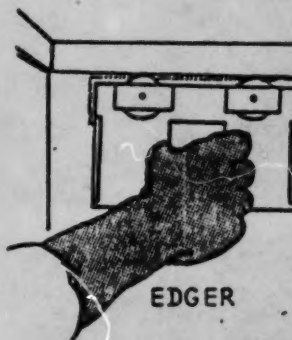
SAFETY GLASSES



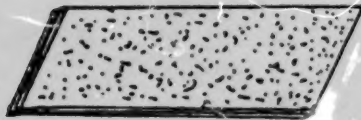
PAINT STICK



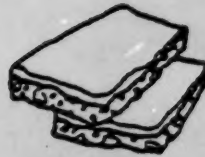
PAINT
THINNER



EDGER



SAND PAPER



SPONGE

WE WILL KNOW YOU CAN DO IT WHEN:

THE INTERIOR SURFACE YOU HAVE PAINTED IS SMOOTH, AND CLEAN,
AND THE FLOOR HAS NO PAINT ON IT.

WORD GUIDE

FIRE-RETARDANT PAINTS - PAINTS
THAT SLOW DOWN BURNING.

REFLECTION - RETURN OF LIGHT FROM
A SURFACE.

INFORMATION

THREE THINGS YOU SHOULD DO WHEN YOU PAINT INTERIOR AREAS:

1. CREATE CHEERFUL ROOM
2. CHOOSE PLEASING COLORS
3. ALLOW FOR REFLECTIONS TO AID LIGHTING.

THINGS TO REMEMBER WHEN CHOOSING PAINTS:

1. EASE OF WASHING
2. REPUTATION OF MANUFACTURER
3. RELECTIVE POWER
4. EASE OF APPLICATION
5. ABILITY TO COVER OLD PAINTED SURFACE.

NOTE: MANY STATES REQUIRE FIRE-RETARDANT PAINTS IN PUBLIC PLACES.

ASK YOUR INSTRUCTOR TO ASSIST YOU IN CHOOSING THE RIGHT PAINT FOR
THE JOB.

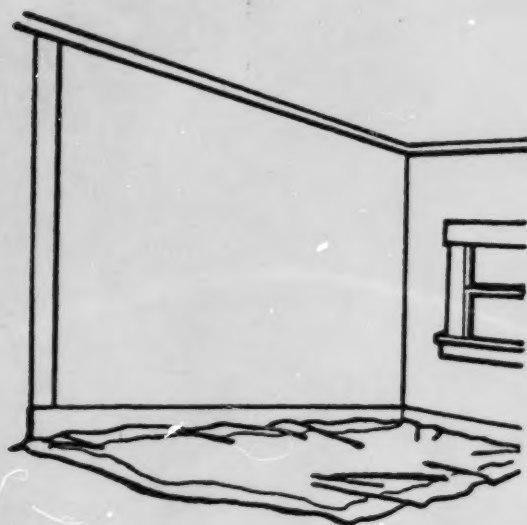
JOB STEPSWORD GUIDE

VENTILATED - MADE OPEN TO THE AIR, SO THE AIR CAN MOVE AROUND FREELY.

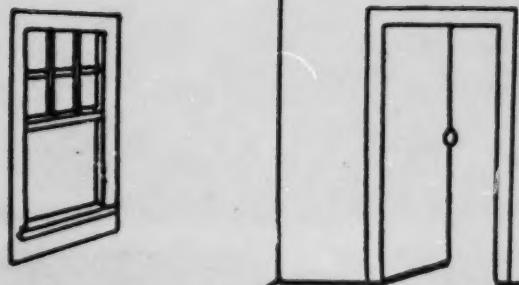
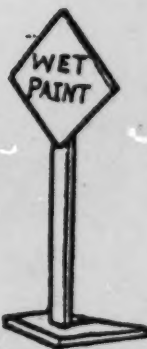
1. , GET ALL EQUIPMENT AND TAKE IT TO YOUR WORK AREA.



2. LAY DROP CLOTH ON FLOOR.



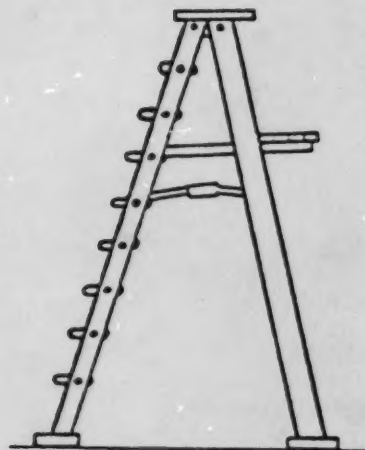
3. SET UP CAUTION SIGNS.



4. CHECK TO SEE THAT THE WORK AREA IS WELL VENTILATED. IF YOU NEED TO, OPEN THE DOOR.

JOB STEPS

5. CHECK THE LADDER TO BE SURE IT IS STRONG.

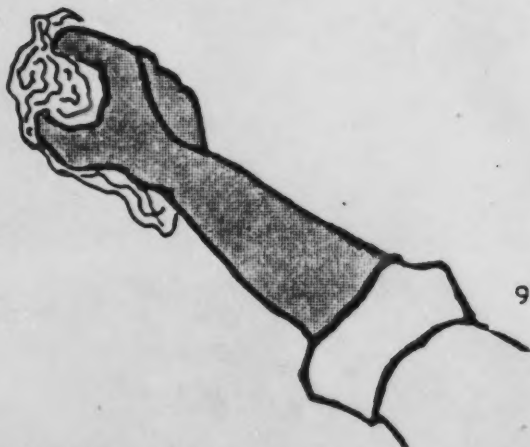


6. LOOK FOR CRACKS AND ROUGH PLACES IN THE SURFACE YOU WILL PAINT.



7. SCRAPE, SAND, OR FILL CRACKS. MAKE THE SURFACE SMOOTH.

8. WIPE OFF ALL DUST WITH A DAMP RAG.



9. WIPE AGAIN WITH A DRY RAG.

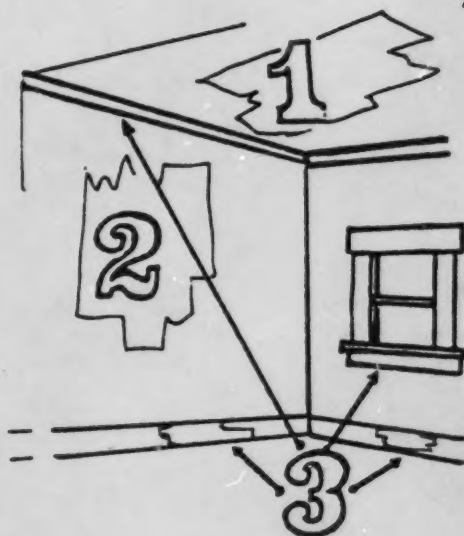
JOB STEPS

10. STIR PAINT, BE SURE IT IS WELL MIXED.



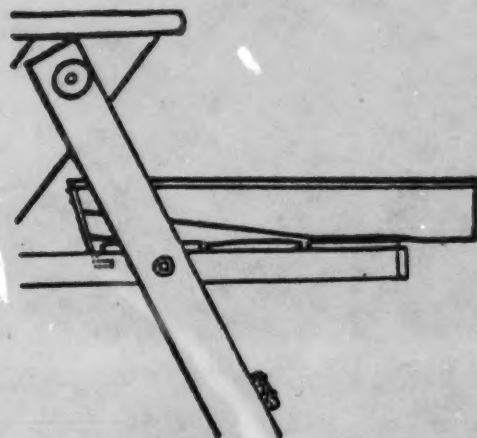
11. PAINT A ROOM IN THIS ORDER:

1. CEILING
2. WALLS
3. TRIM



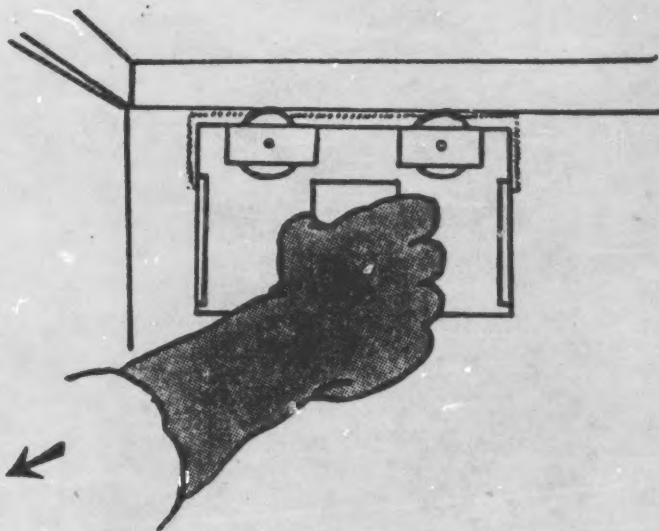
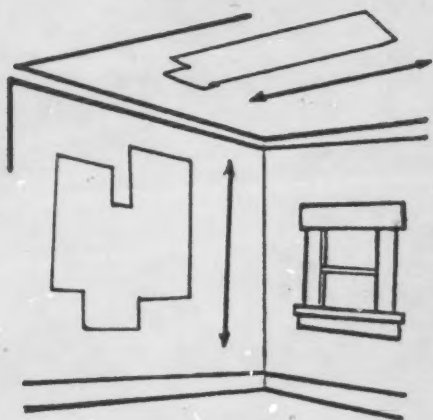
12. ROLLER PAINTING

- A. FASTEN ROLLER PAN TO LADDER SHELF.



JOB STEPS

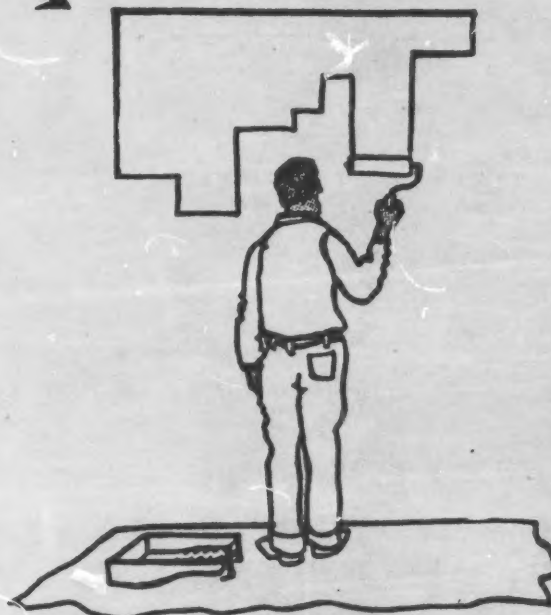
- B. USE A BRUSH OR A PAINT EDGER TO PAINT CORNERS AND ALONG EDGES YOU CANNOT REACH WITH THE ROLLER.



- C. ROLL LENGTH-WISE ON CEILINGS.

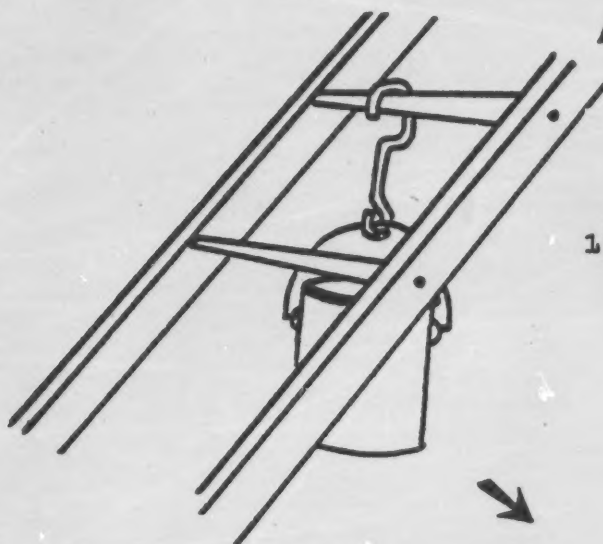
- D. START ROLLER AT TOP OF WALL AND WORK ACROSS. THEN, WORK DOWNWARD.

NOTE: MAKE SMOOTH, UP-AND-DOWN STROKES ON WALLS.



JOB STEPS

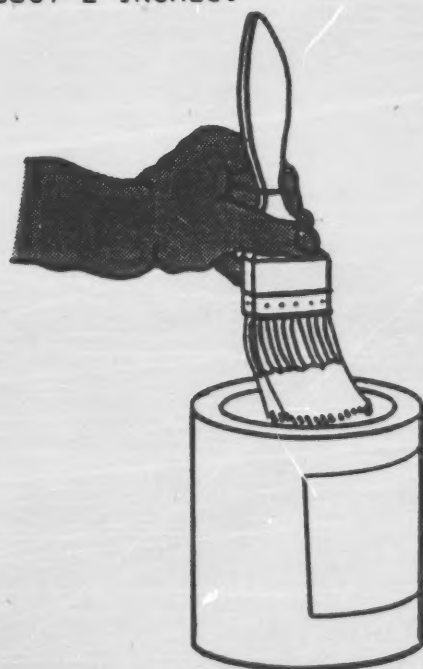
- E. CHECK IF YOU ARE USING LATEX OR OIL-BASE PAINT. LATEX PAINT CAN BE CLEANED WITH WATER. OIL BASE OR ENAMEL PAINT MUST BE CLEANED WITH THINNER.



13. PAINING WITH A BRUSH

- A. FASTEN PAINT CAN TO LADDER WITH WIRE HANGER.

- B. USE A 3 OR 4 INCH BRUSH. DIP THE BRUSH INTO THE CAN ABOUT 2 INCHES.



- C. PRESS ONE SIDE OF BRUSH AGAINST THE RIM OF THE CAN AS YOU TAKE IT OUT. THIS STOPS DRIP AND SAVES PAINT.

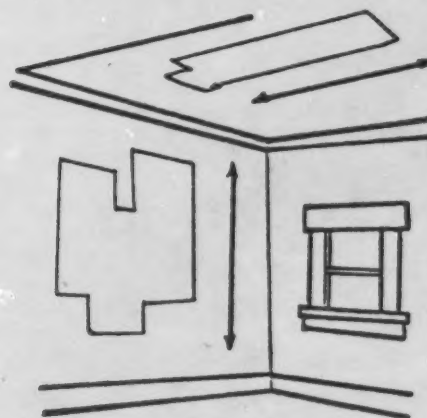
JOB STEPSWORD GUIDE

FEATHER - PAINT OVER THE PLACE
YOU PAINTED BY SPREADING THE
BRUSH.

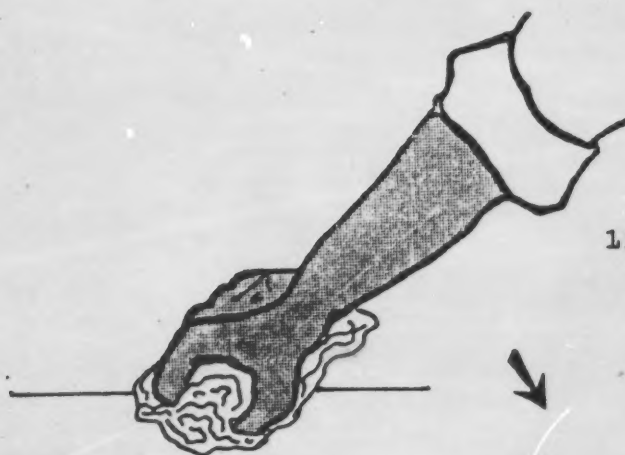
D. BRUSH BACK-AND-FORTH ON
CEILINGS.

E. BRUSH UP-AND-DOWN ON
WALLS.

14. REPEAT STEPS 13B, C, D, AND E
UNTIL AREA IS COVERED. FEATHER
INTO AREAS YOU JUST PAINTED.
SPREAD PAINT.



15. CLEAN UP ALL DRIPPINGS.



16. FOLD DROP CLOTH.



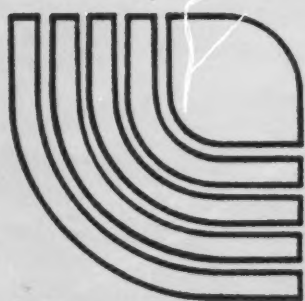
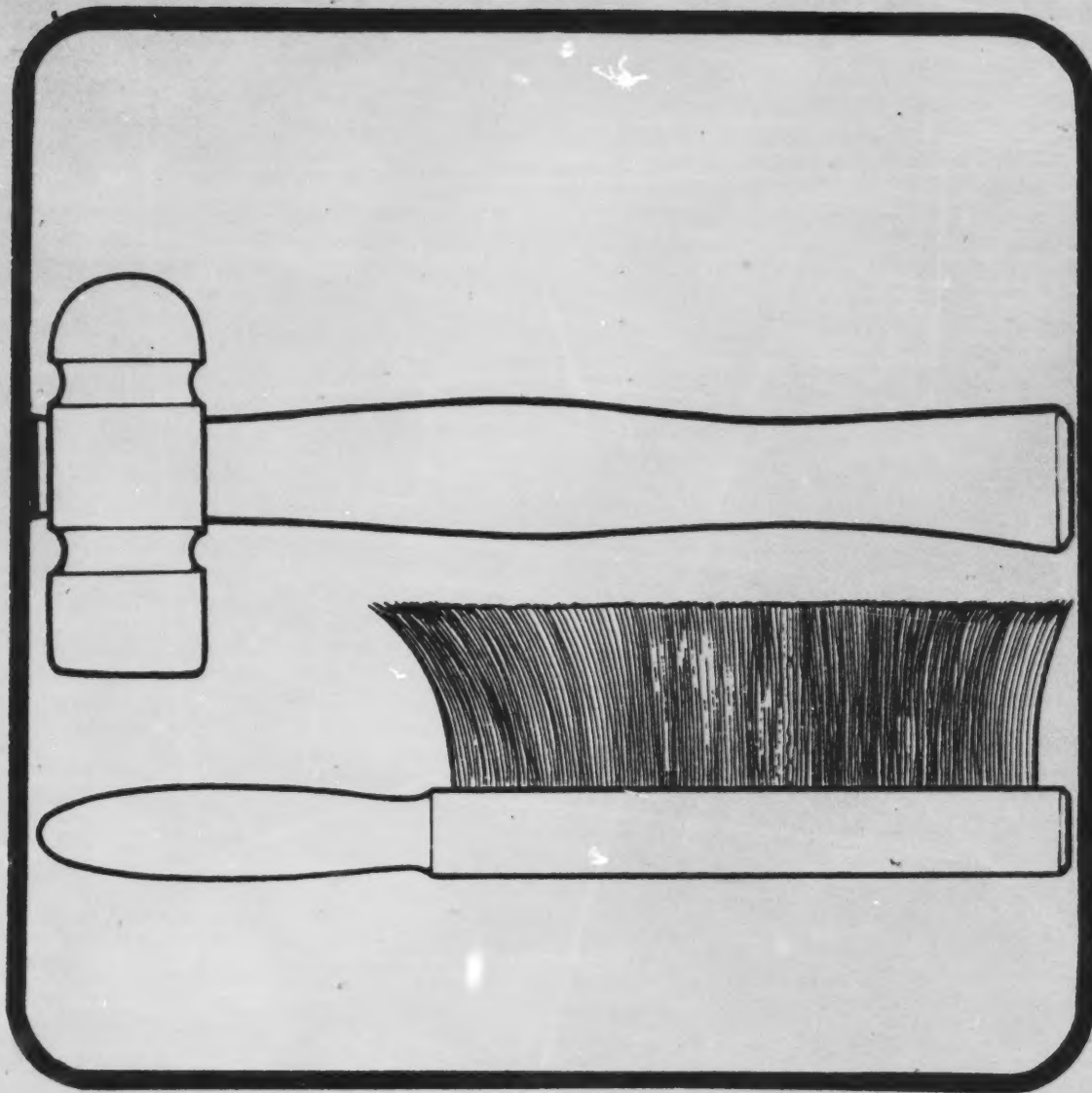
JOB STEPS

17. CLEAN ALL MATERIALS AND EQUIPMENT.



18. RETURN ALL MATERIALS AND EQUIPMENT.

19. ASK YOUR INSTRUCTOR TO CHECK YOUR WORK AND TO SEE THAT YOU HAVE PUT EVERYTHING AWAY.



building maintenance & engineering

unit: PAINTING

capital area career center

module: 2201 02 012 3 date: FEBRUARY 1977 level:

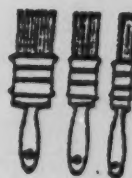
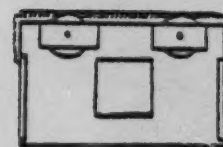
skill title: EXTERIOR PAINTING

developed & written by: DWIGHT SMITH

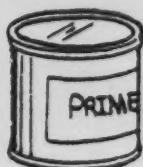
visuals by: BILL DRAPER 223

WORD GUIDEEXTERIOR - OUTSIDE.PRIMER - A THIN COAT OF PAINT TO PROTECT A SURFACE. IT GOES ON BEFORE THE REGULAR PAINT.PERFORMANCE OBJECTIVEYOU ARE GOING TO LEARN:

HOW TO PAINT EXTERIOR SURFACES.

AND IN ORDER TO DO THIS YOU WILL NEED:PAINT ROLLER, PAINT PAN
AND ROLLER HANDLEPAINT BRUSHES:
2", 3", AND 4"

PAINT EDGER



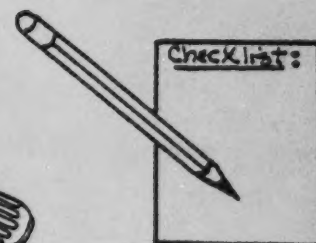
PRIMER (IF NEEDED)



SCRAPER



SCREWDRIVER

CHECKLIST
& PENCIL

SAND PAPER



PAINT



CAUTION SIGNS



DROP CLOTH



SPONGE



PUTTY & PUTTY KNIFE



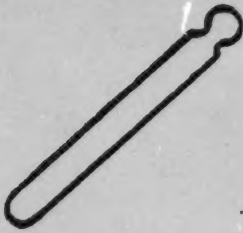
SAFETY GLASSES



RAGS



LADDER



PAINT STIRRER STICK



PAINT CONTAINER

WE WILL KNOW YOU CAN DO IT WHEN:

YOU HAVE PAINTED AN EXTERIOR SURFACE AND THERE ARE NO DRIPS,
STAINS, SPILLS, OR CRACKS.

CHECK YOURSELF -

AN EXTERIOR IS _____.

- A. OUTSIDE
- B. INSIDE
- C. UPSTAIRS
- D. CATFISH

THE CORRECT ANSWER IS "A".

INFORMATION

WHY DO WE PAINT SURFACES?

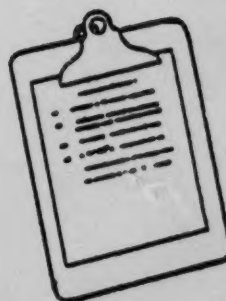
TO PROTECT AND IMPROVE THE LOOKS OF SURFACES.

READ THE INFORMATION ON THE CAN OF PAINT TO LEARN ABOUT PREPARING THE SURFACE YOU WILL PAINT.

WHEN YOU CAN TELL YOUR INSTRUCTOR ABOUT PREPARING A SURFACE FOR PAINTING, TURN THE PAGE AND BEGIN.

JOB STEPS

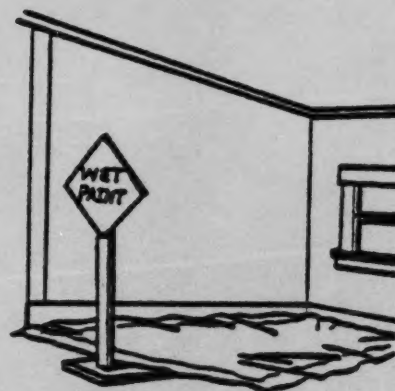
1. GET THE EQUIPMENT CHECKLIST AND EQUIPMENT. CHECK TO BE SURE YOU HAVE EVERYTHING.



2. TAKE THE EQUIPMENT TO THE WORK AREA.



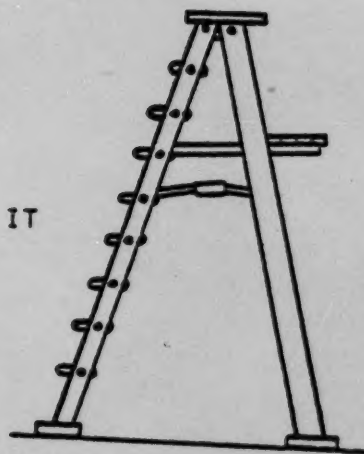
3. SET UP THE CAUTION SIGNS.



4. SPREAD OUT THE DROP CLOTH TO PROTECT THE WORK AREA FROM SPILLS.

JOB STEPS

5. SET UP THE LADDER AND BE SURE IT IS SOLID AND SAFE.



6. SCRAPE LOOSE PAINT FROM ALL CRACKED AREAS.



7. FILL ANY LARGE CRACKS WITH PUTTY.



8. WHEN DRY, SAND PAPER THE PUTTY UNTIL IT IS SMOOTH.

JOB STEPS

9. CLEAN THE SURFACE WITH SANDPAPER OR STEEL WOOL.



10. WIPE THE SURFACE WITH A SLIGHTLY DAMP RAG.



11. IF THE SURFACE HAS NOT BEEN PAINTED, PAINT IT WITH A PRIMER. READ THE CAN FOR DIRECTIONS.

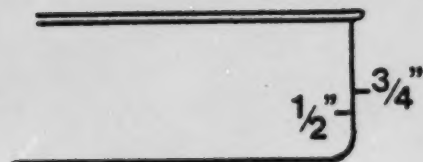


12. IF PAINTING ON METAL, CLEAN THE SURFACE WITH STEEL WOOL.



JOB STEPS

13. OPEN THE CAN OF PAINT WITH A SCREWDRIVER AND STIR THE PAINT WITH A PAINT STIRRER STICK.



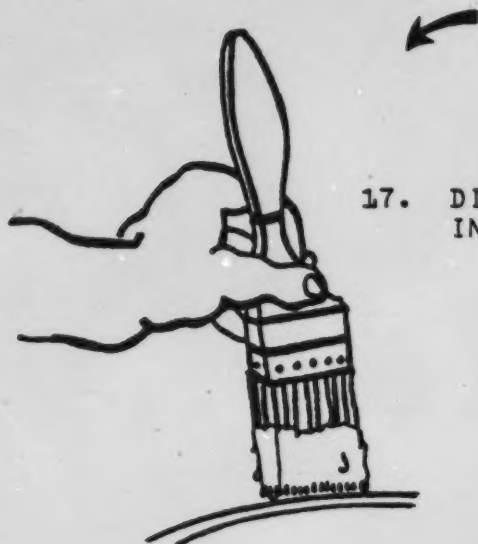
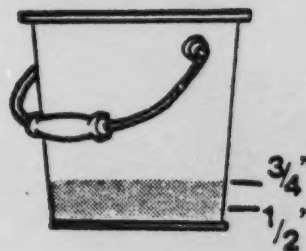
14. IF THE SURFACE IS LARGER THAN 4 FEET BY 4 FEET, POUR 1/2" TO 3/4" OF PAINT INTO THE ROLLER PAN.

15. PUT A ROLLER COVER ON THE ROLLER HANDLE AND DIP IT INTO THE PAINT. ROLL THE ROLLER UP AND DOWN THE PAN UNTIL IT IS COVERED WITH PAINT.



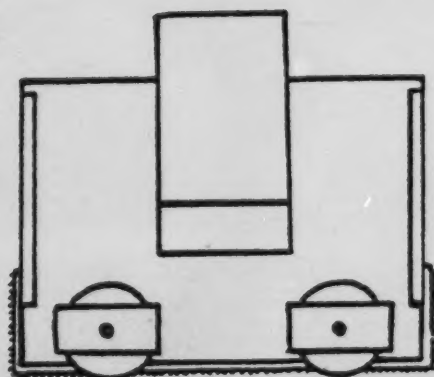
JOB STEPS

16. IF YOU ARE USING A BRUSH, POUR 1/2" TO 3/4" OF PAINT INTO A PAINT CONTAINER AND PUT THE COVER ON THE PAINT CAN. THIS IS TO AVOID SPILLS.



17. DIP 1 OR 2 INCHES OF THE BRUSH INTO THE PAINT.

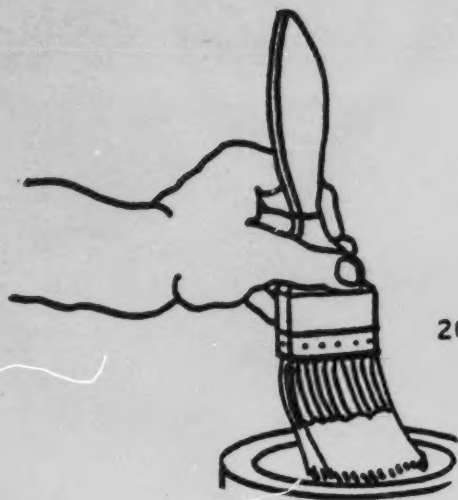
18. BRUSH OR ROLL THE PAINT ONTO THE SURFACE WITH LONG, SLOW STROKES THAT ARE COMFORTABLE TO YOU.



19. USE THE PAINT EDGER TO PAINT ANY AREA WHERE YOU NEED TO LEAVE A NEAT EDGE.

JOB STEPSWORD GUIDE

FEATHER - TO BLEND IN, SO NO BRUSH MARKS SHOW.



20. DIP YOUR BRUSH OR ROLLER EACH TIME IT RUNS DRY.

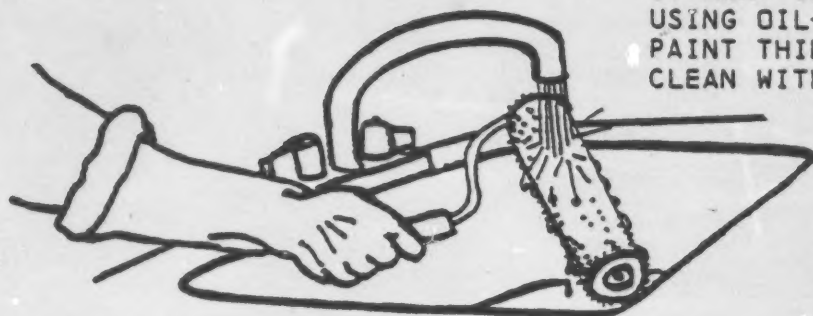
21. REPEAT JOB STEPS 17, 18, AND 19 UNTIL YOU HAVE COVERED THE ENTIRE SURFACE WITH AN EVEN COAT OF PAINT.



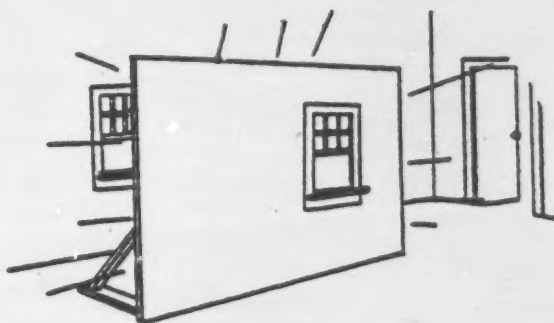
22. GUIDES TO GOOD PAINTING:

- BRUSH STROKES SHOULD BE COMFORTABLE TO YOU.
- DO NOT USE TOO MUCH PAINT. AVOID DRIPS.
- FEATHER.

23. CLEAN ALL YOUR EQUIPMENT AND PUT IT AWAY IN ITS PROPER PLACE. IF USING OIL-BASE PAINT, CLEAN WITH PAINT THINNER. FOR LATEX PAINT CLEAN WITH WATER.



24. GOOD WORK. YOU HAVE JUST PAINTED AN EXTERIOR SURFACE.





building maintenance & engineering

unit: PLUMBING REPAIR

capital area career center

module: 2201 02 014 3 date: 6/77 level:

skill title: CLEARING CLOGGED DRAINS AND TRAPS

developed & written by: DEBORAH J. WHITE

visuals by: DAVE WEHRWEIN

PERFORMANCE OBJECTIVEWHAT YOU ARE GOING TO LEARN:

HOW TO CLEAN CLOGGED TRAPS AND DRAIN LINES.

AND IN ORDER TO DO THIS YOU WILL NEED:

RUBBER PLUNGER



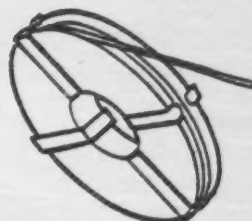
PIPE WRENCH



DRAIN CLEANER



SEWER TAPE



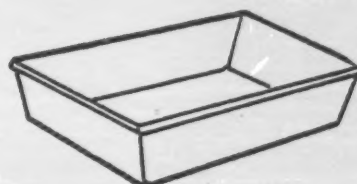
PLUMBER'S SNAKE



CLEAN RAGS



DROP CLOTH



DRIP PAN



FLASHLIGHT

WE WILL YOU CAN DO IT WHEN:

YOU CLEAN THE DRAIN AND TRAP SO IT IS CLEAR OF ALL CLOGS AND THE WATER RUNS FREELY.

WORD GUIDE

RUBBER PLUNGER - A TOOL WITH A LONG WOODEN HANDLE AND A RUBBER SUCTION CUP; USED TO UNCLOG DRAINS.

OVERFLOW DRAIN - HOLE NEAR THE TOP OF THE SINK TO STOP WATER FROM GOING ON THE FLOOR.

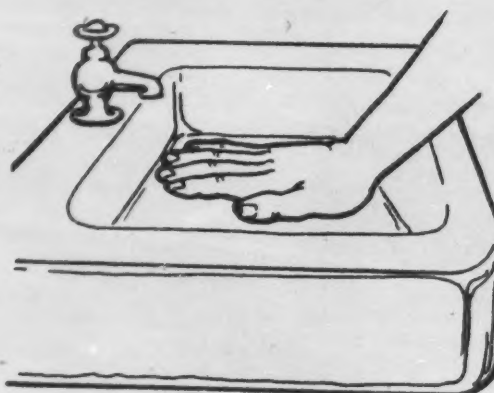
JOB STEPS

1. GET ALL EQUIPMENT AND TAKE IT TO THE WORK AREA.



2. IF WATER FLOWS SLOWLY DOWN THE DRAIN, USE A RUBBER PLUNGER.

3. COVER THE OVERFLOW DRAIN WITH ONE HAND.



4. PUT THE RUBBER PLUNGER OVER THE SINK DRAIN. PUSH DOWN!!! THE CLOG WILL GO DOWN THE DRAIN.

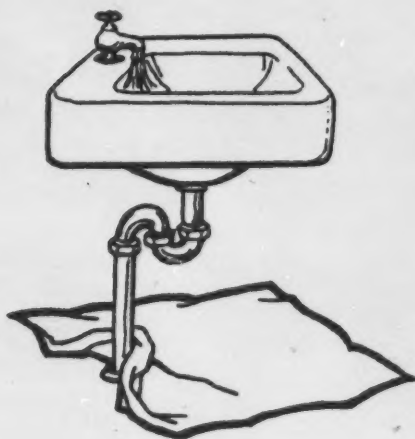
WORD GUIDE

DRAIN CLEANER - LIQUID OR CRYSTAL USED TO CLEAN CLOGS OUT OF DRAINS AND PIPES.

JOB STEPS

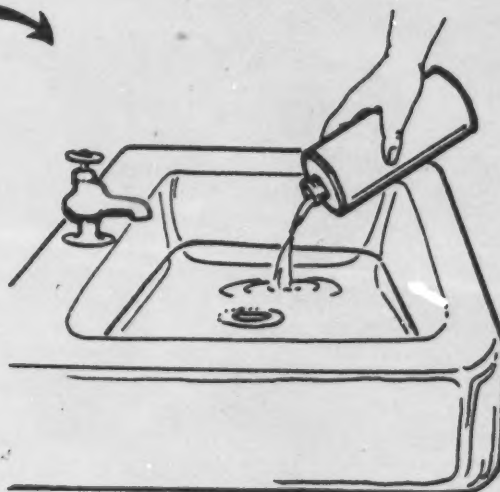
5. PULL THE PLUNGER OUT OF THE SINK SLOWLY. DO NOT SPLASH THE WALLS.

6. REPEAT STEPS 3, 4, 5, FIVE TIMES.



7. TO TEST TO SEE IF THE DRAIN IS CLEAR, RUN WATER INTO THE DRAIN.

8. IF WATER FLOWS FREELY, ADD DRAIN CLEANER. READ DIRECTIONS ON DRAIN CLEANER. FOLLOW DIRECTIONS.



9. IF WATER DOES NOT FLOW FREELY, REPEAT STEPS 3, 4, AND 5.

WORD GUIDE

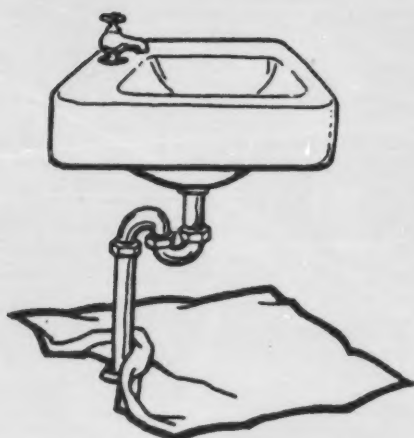
DROP CLOTH - A CLOTH WITH WATERPROOF COATING.

DRAIN TRAP - AN "N"-SHAPED LOOP IN THE DRAIN PIPE TO CATCH THINGS THAT FALL INTO THE SINK DRAIN.

DRIP PAN - A PAN, PAIL, OR CAN USED TO CATCH WATER FROM PIPES.

JOB STEPS

10. IF DRAIN IS STILL CLOGGED, DO THE NEXT JOB STEPS.



11. PUT A DROP CLOTH UNDER THE DRAIN TRAP ON THE FLOOR. THE TRAP IS UNDER THE SINK.

12. PUT THE DRIP PAN UNDER THE TRAP.

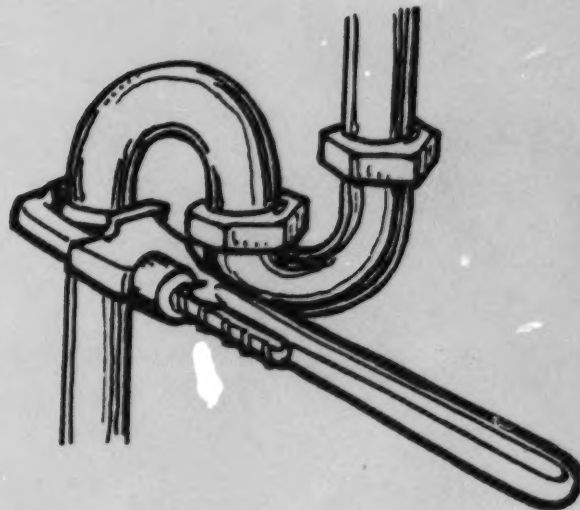


WORD GUIDE

PIPE WRENCH - A WRENCH WITH JAWS THAT HAVE DEEP GROOVES FOR GRIPPING.

JOB STEPS

13. USING THE PIPE WRENCH, LOOSEN THE THREE PIPE NUTS. BE CAREFUL NOT TO SCRATCH THEM.



14. TAKE TRAP OFF PIPES. TO TEST FOR CLOGS -- RUN WATER THROUGH THE TRAP.



15. SHINE FLASHLIGHT INTO THE TRAP TO LOOK FOR ANY BUILD-UP OF CRUST. WIPE IT CLEAN.

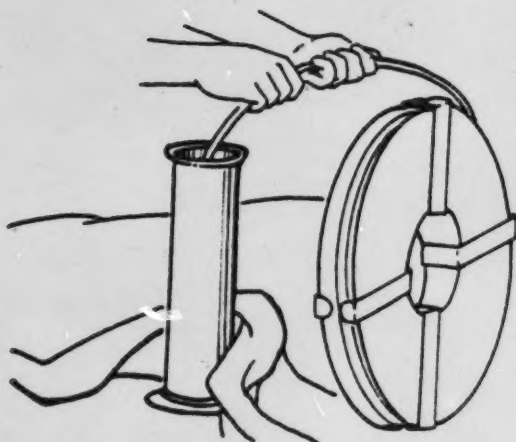


WORD GUIDE

PLUMBER'S SNAKE - A STEEL OR COIL WITH A POINTED END ABOUT 20 OR 50 FEET LONG; USED TO CLEAN DRAINS.

JOB STEPS

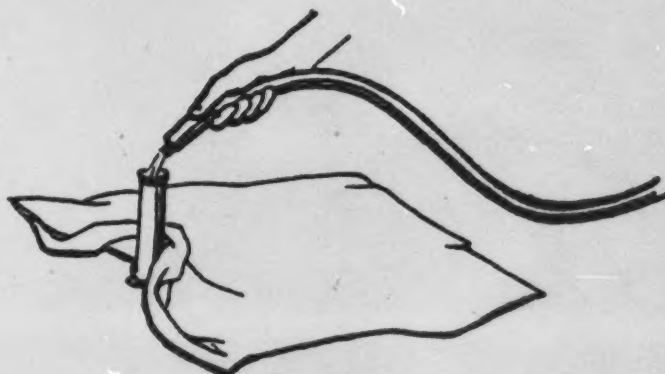
16. PUT THE POINTED END OF THE PLUMBER'S SNAKE INTO THE PIPE IN THE FLOOR.



17. PUSH AND PULL THE SNAKE. WORK IT DOWN UNTIL IT GETS TO THE MAIN DRAIN.

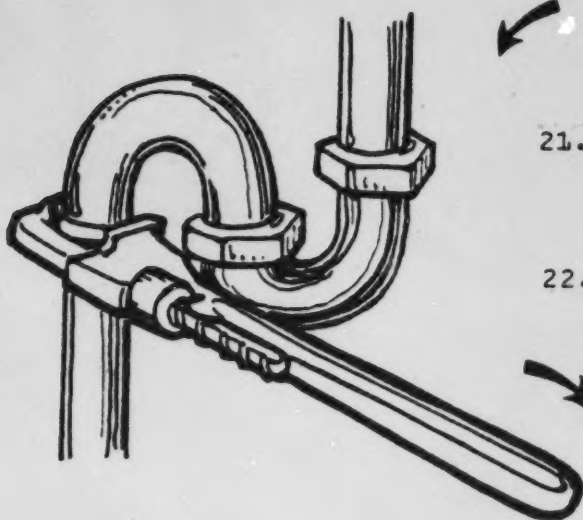
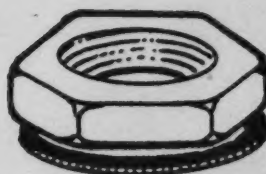
18. WHEN SNAKE GOES IN EASY, WORK IT OUT, PUSH AND PULL THE SNAKE.

19. RUN WATER INTO THE FLOOR PIPE. USE A WATER HOSE, IF YOU HAVE ONE.



JOB STEPS

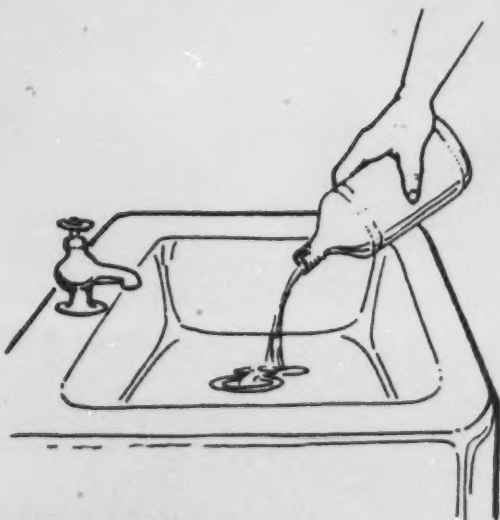
20. CHECK RUBBER GASKETS UNDER THE THREE NUTS. CHANGE THEM IF YOU NEED TO.



21. PUT THE TRAP BACK INTO THE DRAIN LINE.

22. TIGHTEN THE NUTS WITH THE PIPE WRENCH.

23. RUN WATER THROUGH THE SINK PIPES AND LOOK FOR LEAKS.



24. READ DIRECTIONS ON THE DRAIN CLEANER. PUT DRAIN CLEANER INTO THE DRAIN. FOLLOW DIRECTIONS.

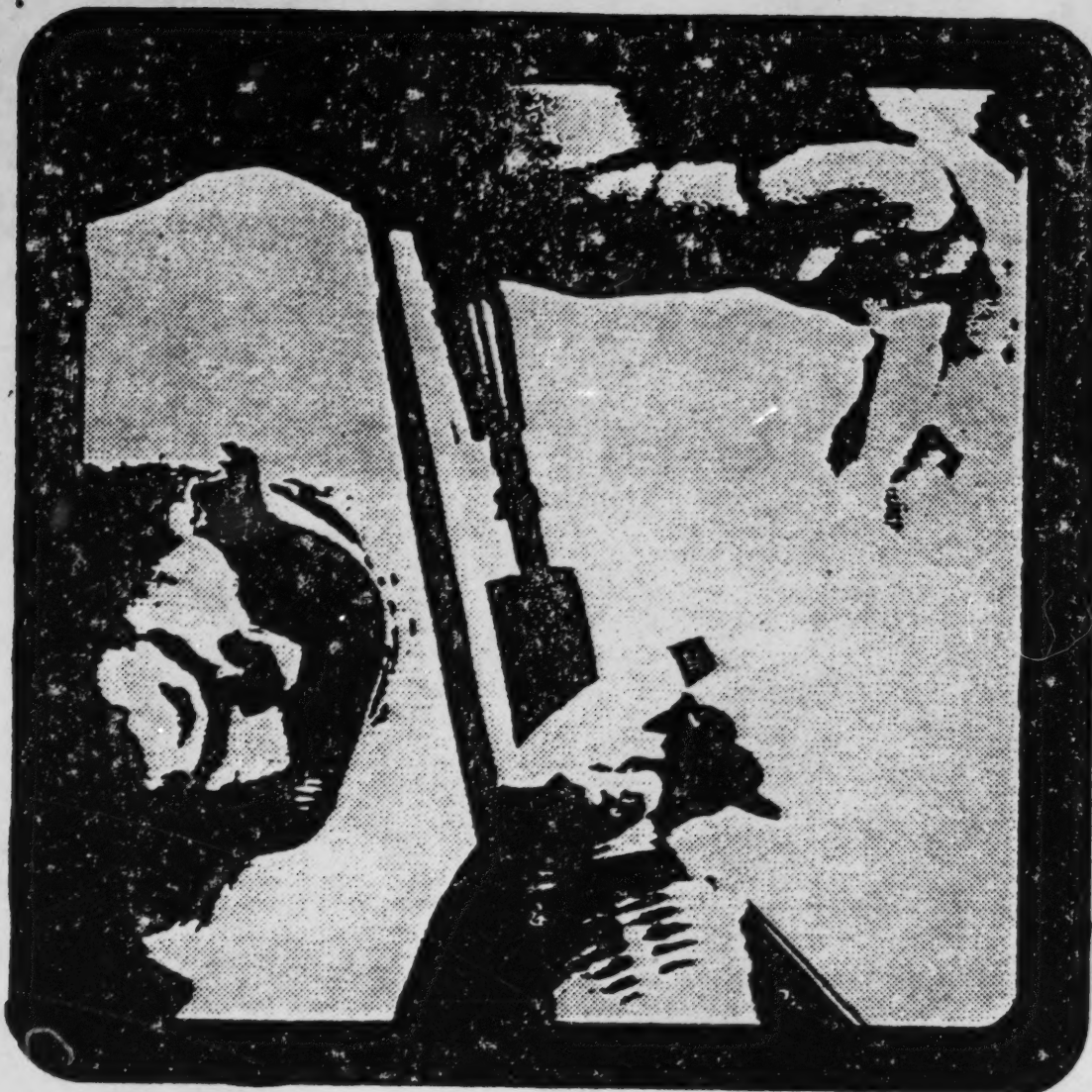
JOB STEPS

25. IF THIS DOES NOT MAKE THE
WATER RUN FREELY, CALL A
PLUMBER.

26. TELL YOUR INSTRUCTOR HOW TO
CLEAR CLOGS FROM A DRAIN.

27. PUT AWAY ALL OF YOUR EQUIPMENT.





building maintenance & engineering

unit: BUILDING MAINTENANCE - LAMP REPLACEMENT

capital area career center

module: 2201 02 015 3 date: 5/77 level:

skill title: FIRE EQUIPMENT - EXTINGUISHERS

developed & written by: DEBORAH J. WHITE

visuals by: 243

WORD GUIDE

CLASS - KIND OF FIRE; CLASS A, B,
OR C.

PERFORMANCE OBJECTIVEWHAT YOU ARE GOING TO LEARN:

HOW TO CHECK AND USE 3 KINDS OF FIRE EXTINGUISHERS.

AND IN ORDER TO DO THIS YOU WILL NEED:

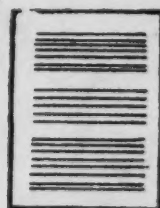
CO₂ TYPE II FIRE EXTINGUISHER



DRY CHEMICAL TYPE III FIRE
EXTINGUISHER



MONTHLY CHECKLIST



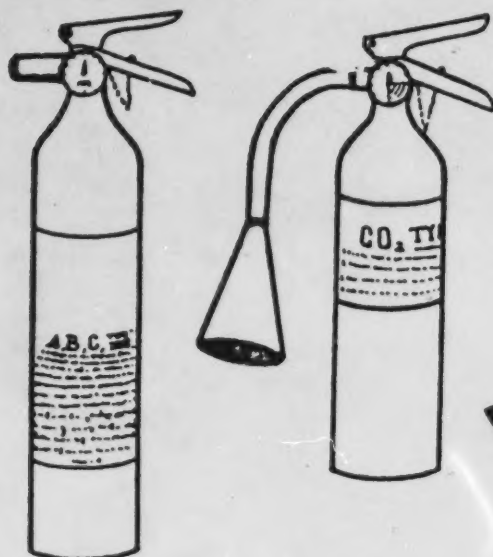
FIRE CLASSES AND EXTINGUISHER TEST

WE WILL KNOW YOU CAN DO IT WHEN:

1. YOU HAVE COMPLETED THE JOB STEPS.
2. YOU TAKE A SHORT TEST.
3. YOU SHOW YOUR INSTRUCTOR WHAT TYPE OF EXTINGUISHER TO USE ON WHICH FIRE.

JOB STEPS

1. FIND ALL FIRE EXTINGUISHERS IN THE BUILDING AND FILL IN YOUR CHECKLIST.



2. WRITE THE KIND OF FIRE EXTINGUISHER THAT IS IN EACH PLACE. (CO₂, DRY CHEMICAL, ETC.)

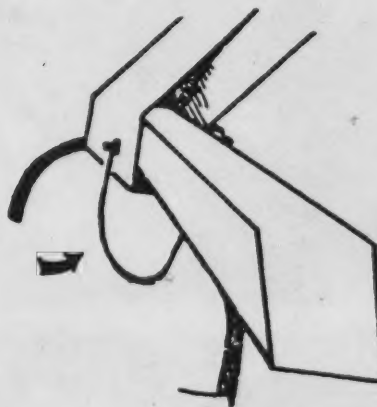
3. WRITE DOWN THE CLASS OF EACH FIRE EXTINGUISHER - A, B, OR C.



4. CHECK THE NOZZLE FOR PLUGGING.



5. CHECK THE WIRE SEAL FOR BREAKS.



JOB STEPS

6. CHECK THE GAUGE TO SEE IF THE FIRE EXTINGUISHER IS FULL. THE ARROW SHOULD POINT TO "FULL".



7. DO NOT REPAIR A FIRE EXTINGUISHER BY YOURSELF:
- A. IF NOZZLE IS PLUGGED.
 - B. IF WIRE SEAL HAS BREAKS.
 - C. IF IT IS NOT FULL.

INSTEAD, SEND THE FIRE EXTINGUISHER TO THE REPAIRMAN

8. COMPLETE THE MONTHLY CHECKLIST.
TALK ABOUT IT WITH YOUR INSTRUCTOR.



9. COMPLETE TEST CORRECTLY.

NAME

LOCATION

TYPE

CLASS

CONDITION

ACTION

EXAMPLE

WELDING LAB

DRY CHEM.

A B C

EMPTY

SEND IN AND
REPLACE

2-15

NAME _____

MONTHLY CHECKLIST

[illegible]

•

249

2-15

NAME _____

ANSWER SHEET

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

TEST

FIRE CLASSES AND EXTINGUISHERS

USE THE ANSWER SHEET. DO NOT WRITE IN THIS MODULE. ANSWERS ARE ON THE LAST PAGE.

1. AN EXTINGUISHER LABELED "ABC" CAN BE USED ON _____.
 - A. BURNING LIQUIDS.
 - B. WOOD, PAPER.
 - C. ELECTRICAL FIRES.
 - D. ALL OF THE ABOVE.

2. AN EXTINGUISHER LABELED "ABC" IS A _____.
 - A. CO₂ EXTINGUISHER.
 - B. DRY CHEMICAL EXTINGUISHER.
 - C. SODA ACID EXTINGUISHER.
 - D. WATER ABCA EXTINGUISHER.

3. BY USING AN EXTINGUISHER QUICKLY AND CORRECTLY, YOU COULD STOP A _____.
 - A. DEATH.
 - B. GREAT LOSS OF MONEY.
 - C. BAD FIRE.
 - D. ALL OF THE ABOVE.

4. CLASS B FIRES ARE _____.
 - A. BURNING LIQUID.
 - B. WOOD-PAPER.
 - C. ELECTRICAL.
 - D. BURNT WIRES.

5. CLASS C FIRES ARE _____.
 - A. BURNING WIRES.
 - B. WOOD-PAPER.
 - C. BURNING ELECTRICAL MOTOR.
 - D. BOTH A-AND C ARE CORRECT.
6. CO₂ FIRE EXTINGUISHERS ARE USED TO PUT OUT _____ FIRES.
 - A. A AND B
 - B. B AND C
 - C. A, B, AND C
 - D. A AND C
7. YOU SHOULD CHECK FIRE EXTINGUISHERS ONCE A _____.
 - A. DAY.
 - B. WEEK.
 - C. MONTH.
 - D. YEAR.
8. WHEN CHECKING A FIRE EXTINGUISHER, YOU MUST CHECK _____.
 - A. WIRE SEAL.
 - B. THE GAUGE.
 - C. THE NOZZLE FOR PLUGS.
 - D. ALL OF THE ABOVE.
9. IF A FIRE EXTINGUISHER HAS A BROKEN SEAL, WHAT SHOULD YOU DO?
 - A. TEST IT.
 - B. TRY TO FIX THE WIRE.
 - C. SEND IT TO A REPAIRMAN.
 - D. SHAKE IT.

10. IN ORDER TO USE A FIRE EXTINGUISHER, WE DO NOT HAVE TO KNOW WHAT IS INSIDE IT. WE DO HAVE TO KNOW THE FIREMEN'S CODE. THIS CODE TELLS US WHAT KIND OF FIRE FOR WHICH TO USE EACH EXTINGUISHER. THE CODE IS _____.

A. A D E.

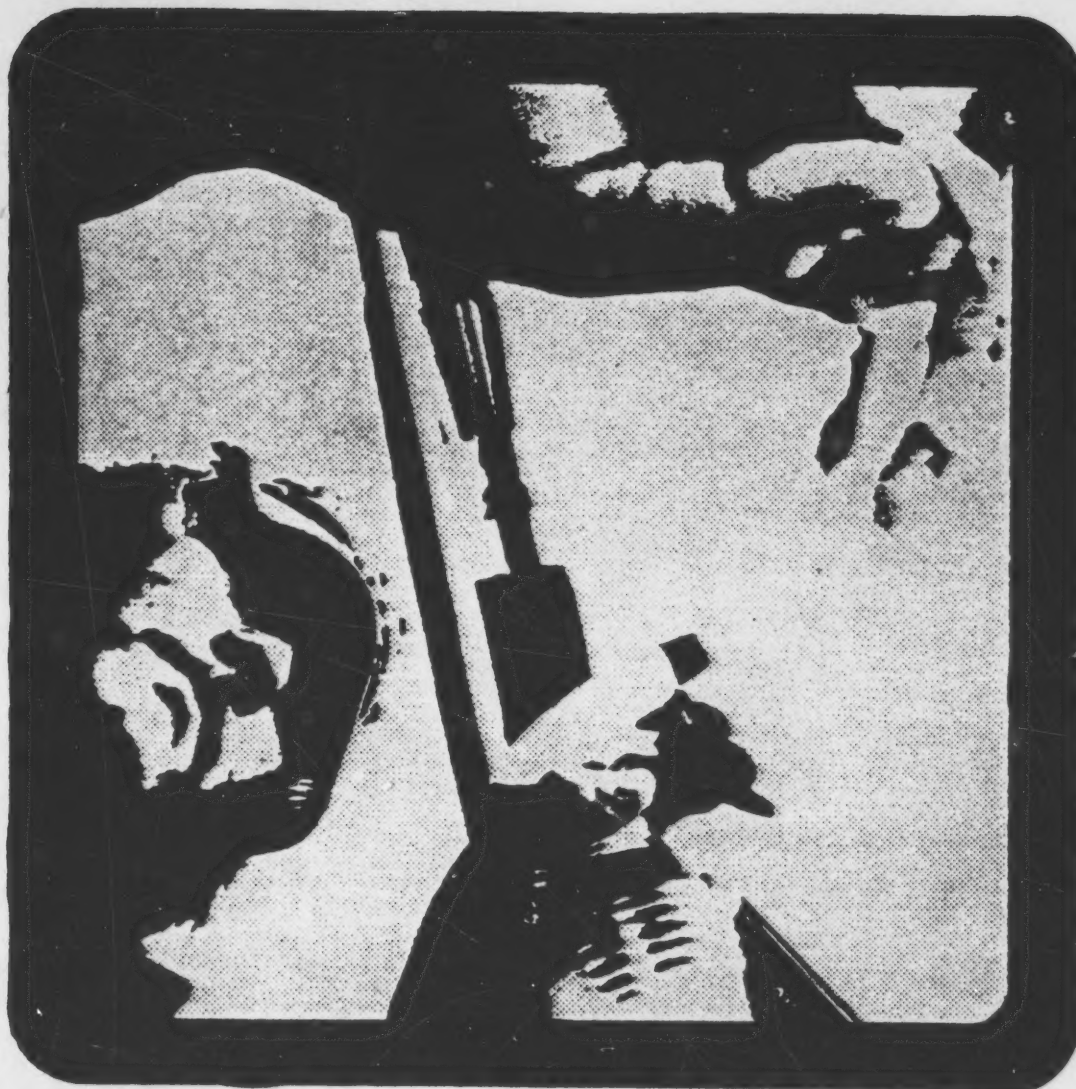
B. A B

C. A OR B OR C OR ALL 3.

D. B C.

ANSWER KEY

1. D
2. B
3. D
4. A
5. D
6. B
7. C
8. D
9. C
10. C



building maintenance & engineering

unit: GENERAL MAINTENANCE

capital area career center

module: 2201 02 016 3 date: 5/77 level:

skill title: REPAIR OF BLISTERED AND CRACKED GRAVEL AND TAR
TYPE ROOF

developed & written by: DEBORAH J. WHITE

visuals by: MARY ANN GAMES

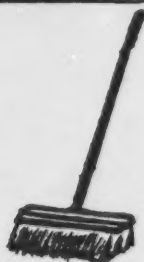
WORD GUIDEPERFORMANCE OBJECTIVE

BLISTER - A RAISED SPOT CONTAINING LIQUID; A BUBBLE.

GUNNEY SACK - BURLAP SACK.

YOU ARE GOING TO LEARN:

HOW TO REPAIR BLISTERS AND SURFACE BREAKS IN A FLAT TAR & GRAVEL ROOF.

AND IN ORDER TO DO THIS YOU WILL NEED:

HEAVY BRISTLED BROOM

2 ROOFING TROWELS
(SQUARE ENDED)

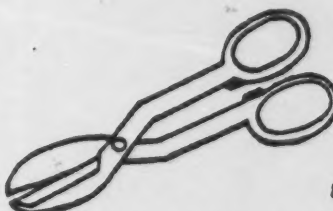
BOX CUTTER



HAMMER



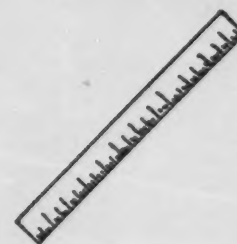
CHISEL



KNIFE & SHEARS



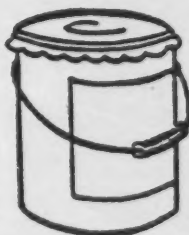
RAGS



RULER



MINERAL SPIRITS



TAR BASE MASTIC

LIGHT
GUNNY
SACKPEA STONE
GRAVEL

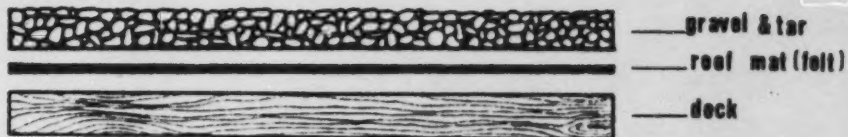
TROWEL

WE WILL KNOW YOU CAN DO IT WHEN:

THE REPAIRED ROOF HAS NO BLISTERS AND DOES NOT LEAK.

JOB STEPS

1. LEARN ALL PARTS OF THE ROOF.
NAME THE PARTS OF THE ROOF IN
THE PICTURE FOR YOUR INSTRUCTOR.
TALK ABOUT EACH PART.



2. SWEEP AND CLEAN ALL DIRT, DUST,
ETC. FROM THE AREA YOU WILL
REPAIR.



3. USING "BOX CUTTER", CUT AN "X"
IN THE BLISTERED AREA. ASK YOUR
INSTRUCTOR TO WATCH.



4. CUT GUNNEY SACK WITH SCISSORS.
MAKE A RECTANGLE 4-INCHES LARGER
THAN THE "X" YOU CUT IN THE ROOF.

WORD GUIDE

ROOF MAT - 3 OR 4 LAYERS OF #15 FELT; IN BETWEEN PLYS AND ON ALL OUTSIDE PARTS COATED WITH HOT TAR.

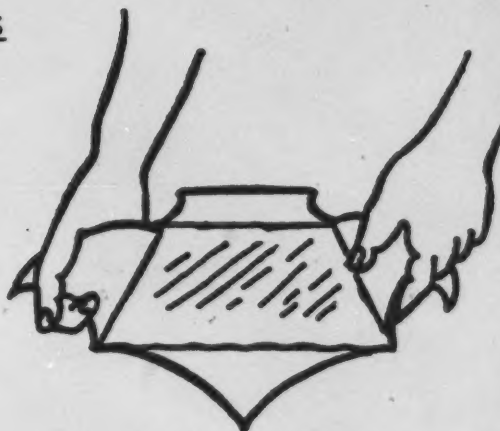
TAR - BLACK, STICKY LIQUID.

MASTIC - PASTE-LIKE MATERIAL USED TO PROTECT SURFACES.

JOB STEPS

5. FOLD BACK 4 PARTS OF "X" THAT YOU CUT.

NOTE: BE CAREFUL. DON'T BREAK ROOF MAT WHEN YOU FOLD ROOF MAT BACK.



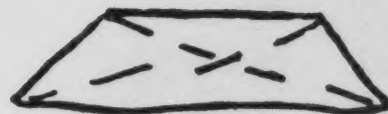
6. WIPE THE AREA DRY WITH A CLOTH.

7. USING TROWEL, SPREAD LOTS OF TAR BASE MASTIC ON ROOF MAT.



JOB STEPS

8. FOLD SECTIONS OF "X" BACK INTO PLACE.



9. USING TROWEL, PUT MORE MASTIC ON TOP OF THE FOLDS.



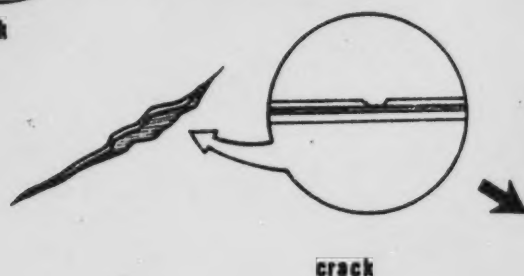
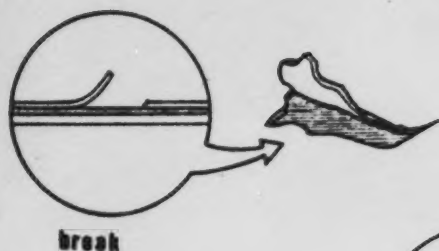
10. PUT CUT-UP GUNNEY SACK ON TOP. PRESS THE GUNNEY SACK DOWN INTO THE MASTIC.



11. PUT MORE MASTIC ON TOP OF THE GUNNEY SACK. USE THE TROWEL TO SPREAD THE MASTIC OVER THE GUNNEY SACK.

JOB STEPS

12. USING THE OTHER TROWEL, SPREAD AND SMOOTH THE MASTIC SO ALL PARTS LOOK THE SAME.



13. FIX SURFACE BREAKS OR CRACKS THE SAME WAY. YOU DO NOT NEED TO MAKE THE "X" CUT. REVIEW JOB STEPS 7-13.

14. CLEAN THE TROWELS IN MINERAL SPIRITS. WIPE DRY WITH A RAG.



15. ASK YOUR INSTRUCTOR TO CHECK YOUR WORK.

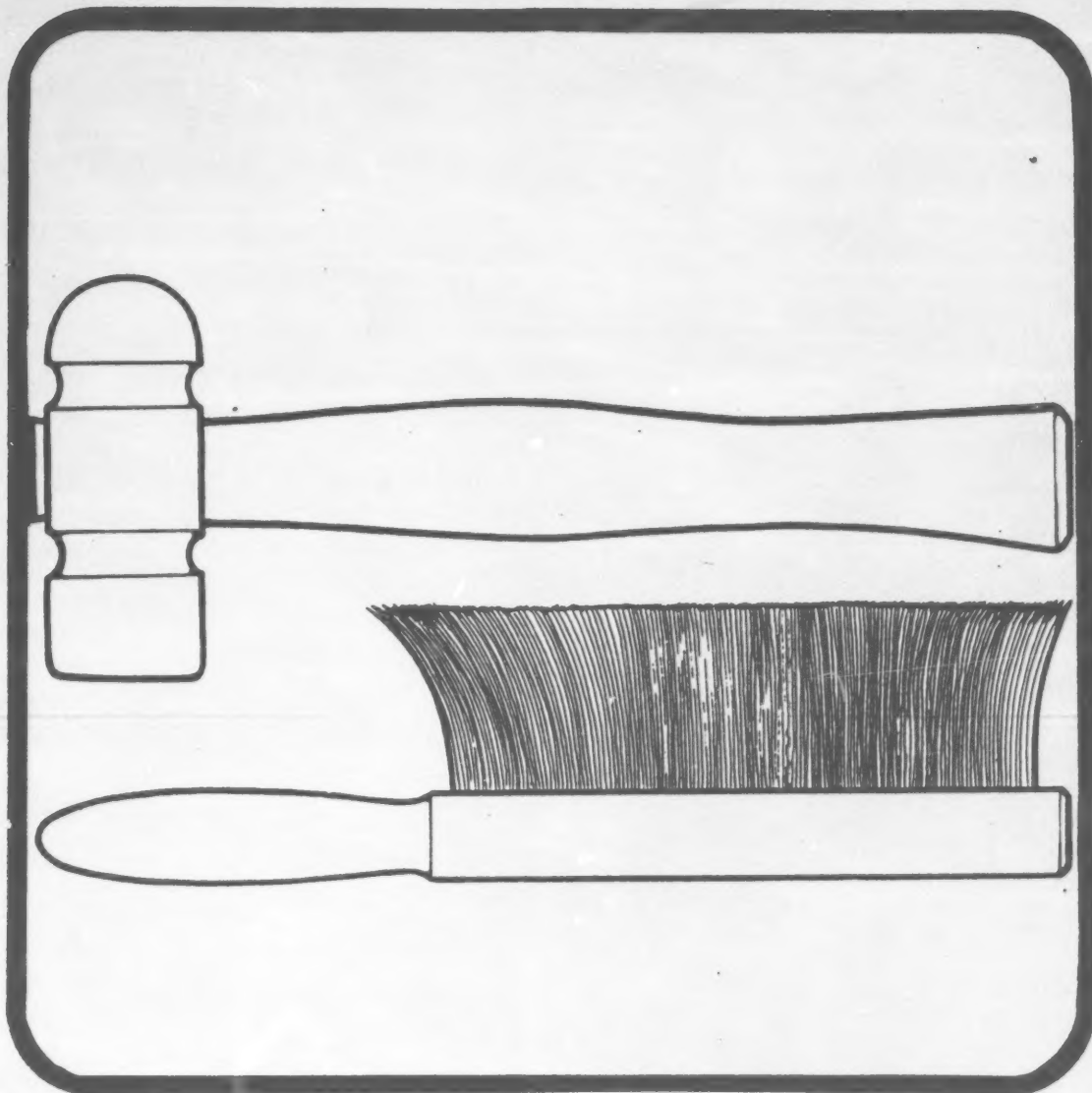
JOB STEPS

16. TELL YOUR INSTRUCTOR HOW YOU
WOULD REPAIR A TAR ROOF:

- A. BLISTERS
- B. CRACKS AND BREAKS



17. PUT AWAY YOUR EQUIPMENT.



building maintenance & engineering

unit: GENERAL MAINTENANCE

capital area career center

module: 2201 02 017 3 date: JANUARY 1977 level: I

skill title: CLEANING ALUMINUM SURFACES

developed & written by: DANIEL M. WOODWARD

visuals by: BILL DRAPER 262

WORD GUIDE

ALUMINUM - A LIGHT SILVER COLORED
METAL

PERFORMANCE OBJECTIVEYOU ARE GOING TO LEARN:

HOW TO CLEAN AND WAX AN ALUMINUM SURFACE.

IN ORDER TO DO THIS YOU WILL NEED:

AN ALUMINUM SURFACE
TWO PAILS
TWO SPONGES
A MILD, ALL PURPOSE SOAP
STEP LADDER
WIPING CLOTH
LIQUID WAX
MEASURING CUP

WE WILL KNOW YOU CAN DO IT WHEN:

1. YOU HAVE ALL YOUR EQUIPMENT.
2. YOU HAVE DONE THE JOB STEPS SO THE ALUMINUM SURFACE HAS NO DIRT OR MARKS.

INFORMATION

THINGS YOU WANTED TO KNOW ABOUT ALUMINUM BUT WERE AFRAID TO ASK:

1. QUESTION: ALOT OF PEOPLE THINK THAT ALUMINUM WON'T RUST. IF THAT'S TRUE, HOW COME WE HAVE TO CLEAN IT?

ANSWER: YOU'RE RIGHT. ALUMINUM WILL NOT RUST. BUT, IT DOES GET DIRTY. DUST AND SMOKE BUILD UP ON THE SURFACE. THIS MAKES THE ALUMINUM LOOK KIND OF CLOUDY.

2. QUESTION: WHERE IN A BUILDING WOULD I FIND ALUMINUM TRIM OR SURFACE?

ANSWER: AROUND WINDOWS, ON DOORS AND HAND RAILS.

3. QUESTION: CAN I SCRATCH ALUMINUM?

ANSWER: YOU SURE CAN. YOU HAVE TO PUT THE WAX ON JUST THE RIGHT WAY. WHEN YOU WIPE OR BUFF, YOU RUB IN THE WAY THE FINISH GOES. YOU DO NOT RUB THE METAL BY GOING ROUND AND ROUND.

ANSWER THE FOLLOWING QUESTION:

WHEN CLEANING ALUMINUM, YOU SHOULD RUB:

- A. ANY WAY YOU LIKE
- B. NOT AT ALL
- C. IN THE DIRECTION OF THE FINISH
- D. ROUND AND ROUND

IF YOU ANSWERED "C", YOU HAVE THE IDEA. IF YOU DIDN'T, ASK YOUR INSTRUCTOR TO HELP YOU UNDERSTAND THE INFORMATION FOR THIS MOD.

JOB STEPS

1. TAKE ALL YOUR EQUIPMENT TO YOUR WORK AREA.



2. FILL BOTH YOUR PAILS WITH WARM WATER.



3. PUT 1/3 OF A CUP OF SOAP INTO YOUR MEASURING CUP.

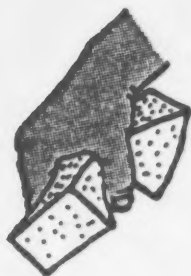


4. PUT THE SOAP INTO ONE OF THE PAILS



JOB STEPS

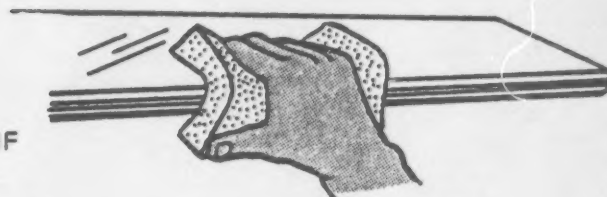
4. PUT A SPONGE INTO EACH PAIL.



5. LIGHTLY SQUEEZE MOST OF THE WATER OUT OF THE SOAPY SPONGE.

6. USING SOAPY SPONGE, WIPE ALUMINUM BACK AND FORTH ALONG THE GRAIN.

NOTE: WHEN YOU APPLY CLEANER AND WAX, OR WHEN YOU WIPE OR BUFF ALUMINUM, ALWAYS RUB IN DIRECTION OF FINISH. NEVER RUB IN A CIRCULAR MOTION!



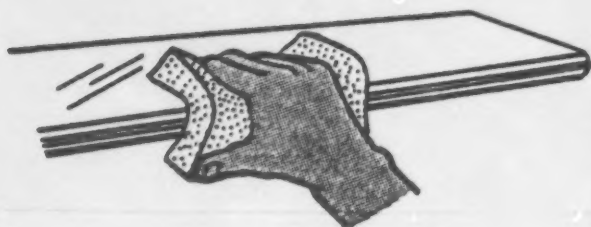
7. PUT SOAPY SPONGE BACK INTO THE SOAPY WATER.

WORD GUIDE

GRAIN - THE LINES OF
THE MATERIAL.

JOB STEPS

8. SQUEEZE OUT MOST OF THE WATER FROM
CLEAN SPONGE.



9. USING CLEAN SPONGE, RINSE ALUMINUM BY
WIPING BACK AND FORTH ALONG THE GRAIN.

10. PUT CLEAN SPONGE BACK INTO CLEAN
WATER PAIL.

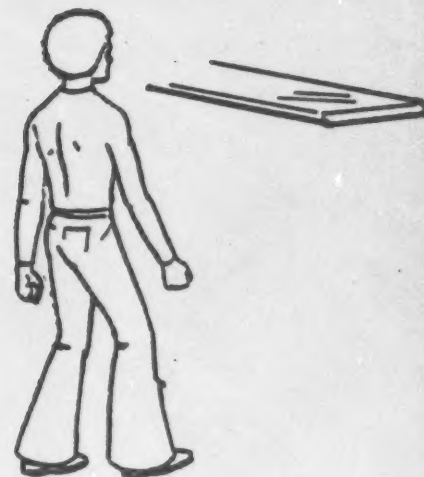


11. WIPING BACK AND FORTH WITH CLEAN
WIPING CLOTH, QUICKLY DRY ALUMINUM.

JOB STEPS

12. LOOK AT THE ALUMINUM AND ASK YOURSELF THESE QUESTIONS:

- A. DOES IT LOOK CLEAN?
- B. ARE THERE SPOTS?
- C. DOES THE ALUMINUM LOOK CLOUDY?
- D. DOES IT HAVE STREAKS OR LINES ON IT?



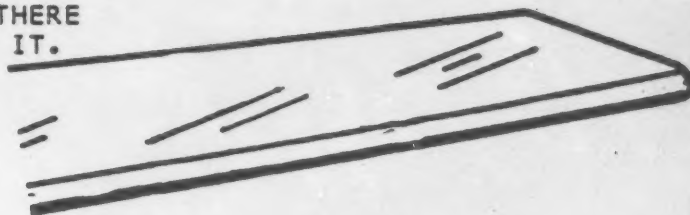
13. TAKE ANOTHER RAG AND POUR A LITTLE BIT OF LIQUID WAX ONTO IT.

14. PUT A THIN (NO DRIPS) COVERING OF WAX ON THE ALUMINUM.



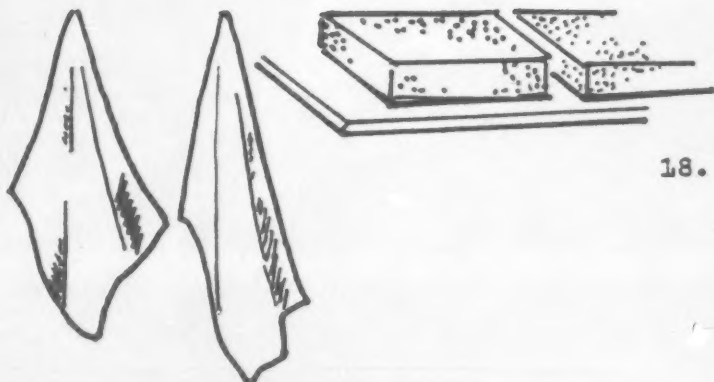
JOB STEPS

15. LET THE WAX DRY. MAKE SURE THERE ARE NO STREAKS (OR LINES) IN IT.

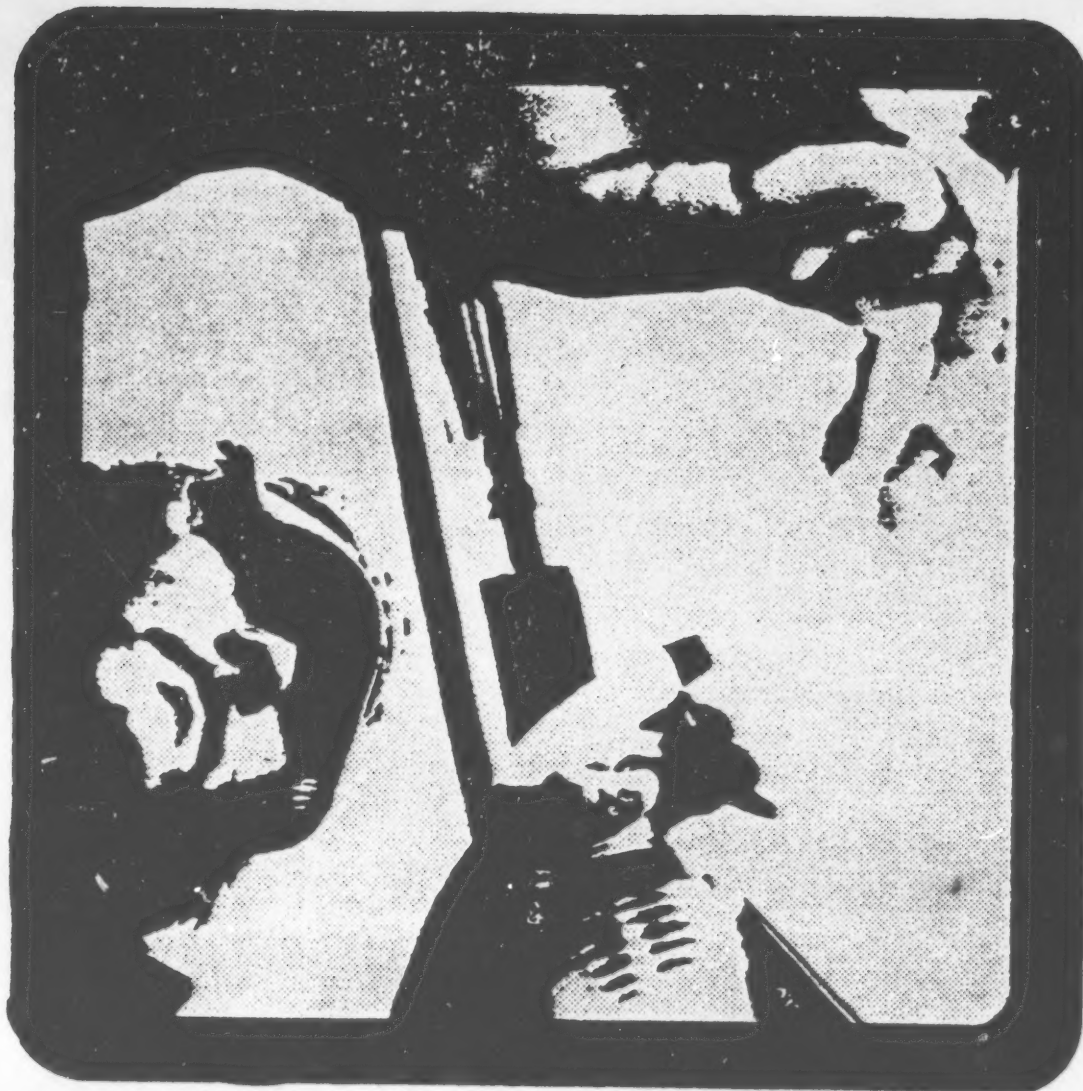


16. PUT CAPS ON THE TOP OF THE SOAP AND WAX CONTAINERS.

17. EMPTY THE WATER FROM THE PAILS.



18. PUT YOUR RAGS AND SPONGES IN A PLACE TO DRY.



building maintenance & engineering

unit: GENERAL MAINTENANCE

capital area career center

module: 2201 02 017 3 date: 5/77 level: II

skill title: CLEANING ALUMINUM SURFACES

developed & written by: DEBRA CONSTANTINI

visuals by: BILL DRAPER

WORD GUIDE

ALUMINUM - A LIGHT COLORED METAL
USED FOR TRIM ON BUILDINGS.

PERFORMANCE OBJECTIVEYOU ARE GOING TO LEARN:

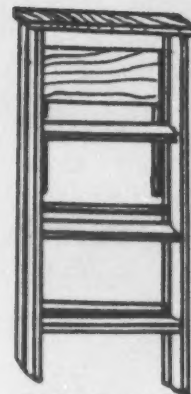
HOW TO CLEAN AND WAX AN ALUMINUM SURFACE.

AND IN ORDER TO DO THIS YOU WILL NEED:

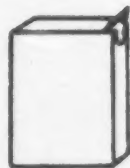
2 PAILS



2 SPONGES



STEP LADDER



MILD, ALL-PURPOSE SOAP



WIPING CLOTHS



LIQUID WAX

WE WILL KNOW YOU CAN DO IT WHEN:

1. YOU CLEAN ALL DIRT AND STAINS FROM THE ALUMINUM AND WAX THE SURFACE WITHOUT SCRATCHING IT.

WORD GUIDE

CIRCULAR MOTION - MOVING AROUND
IN CIRCLES.

INFORMATION

WHY DOES ALUMINUM NEED TO BE CLEANED?

EVEN THOUGH ALUMINUM DOES NOT RUST, IT GETS DIRTY. SMOKE, FUMES, AND AIR CAUSES THE METAL TO CHANGE COLOR.

ALUMINUM IS USED ON DOORS, AROUND WINDOWS, GRILLS, AND HAND RAILS.

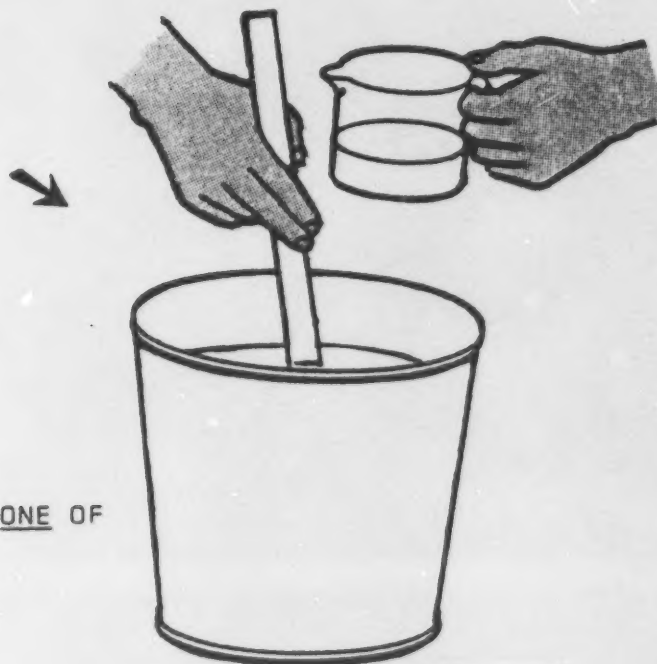
ALWAYS RUB ALUMINUM IN THE SAME DIRECTION AS THE GRAIN OF THE METAL. NEVER RUB IN A CIRCULAR MOTION. THIS SCRATCHES THE SURFACE AND CAN RUIN IT.

JOB STEPS

1. GET TOGETHER ALL EQUIPMENT.



2. FILL BOTH PAILS $\frac{3}{4}$ FULL WITH WARM WATER.



3. PUT $\frac{1}{3}$ CUP OF SOAP INTO ONE OF THE PAILS AND MIX IT IN.

WORD GUIDE

GRAIN - THE LINES OF THE MATERIAL.

JOB STEPS

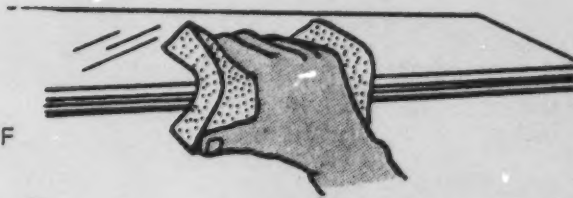
4. PUT A SPONGE INTO EACH PAIL.



5. LIGHTLY SQUEEZE MOST OF THE WATER OUT OF THE SOAPY SPONGE.

6. USING SOAPY SPONGE, WIPE ALUMINUM BACK AND FORTH ALONG THE GRAIN.

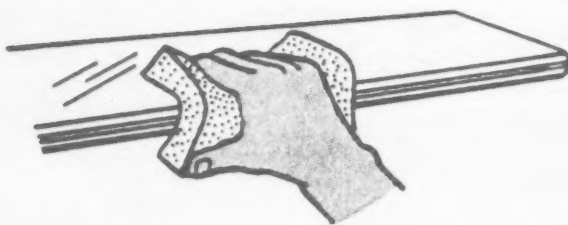
NOTE: WHEN YOU APPLY CLEANER AND WAX, OR WHEN YOU WIPE OR BUFF ALUMINUM, ALWAYS RUB IN DIRECTION OF FINISH. NEVER RUB IN A CIRCULAR MOTION!



7. PUT SOAPY SPONGE BACK INTO THE SOAPY WATER.

JOB STEPS

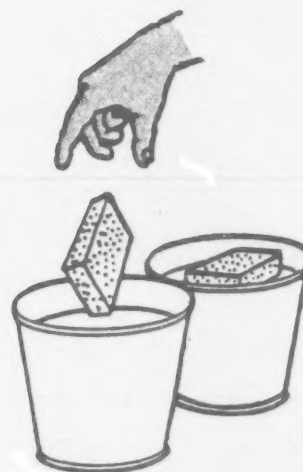
8. SQUEEZE OUT MOST OF THE WATER FROM CLEAN SPONGE.



9. USING CLEAN SPONGE, RINSE ALUMINUM BY WIPING BACK AND FORTH ALONG THE GRAIN.



10. PUT CLEAN SPONGE BACK INTO CLEAN WATER PAIL.



11. WIPING BACK AND FORTH WITH CLEAN WIPING CLOTH, QUICKLY DRY ALUMINUM.

JOB STEPSWORD GUIDE

DISCOLORED - CLOUDY, OFF-COLOR.

BUFF - POLISH, SHINE.

12. CHECK ALUMINUM FOR SPOTS, STREAKS, OR DISCOLORED AREAS.



13. IF YOU CAN SEE SPOTS, STREAKS, OR DISCOLORED AREAS, DO JOB STEPS 6-12 AGAIN.



14. POUR ABOUT 1/2 TEASPOON OF LIQUID WAX ONTO A CLEAN, SMALL CLOTH.



15. MOVING THE RAG BACK AND FORTH, PUT A THIN COAT OF WAX ONTO CLEAN ALUMINUM. BUFF IT LIGHTLY WHEN IT IS DRY.

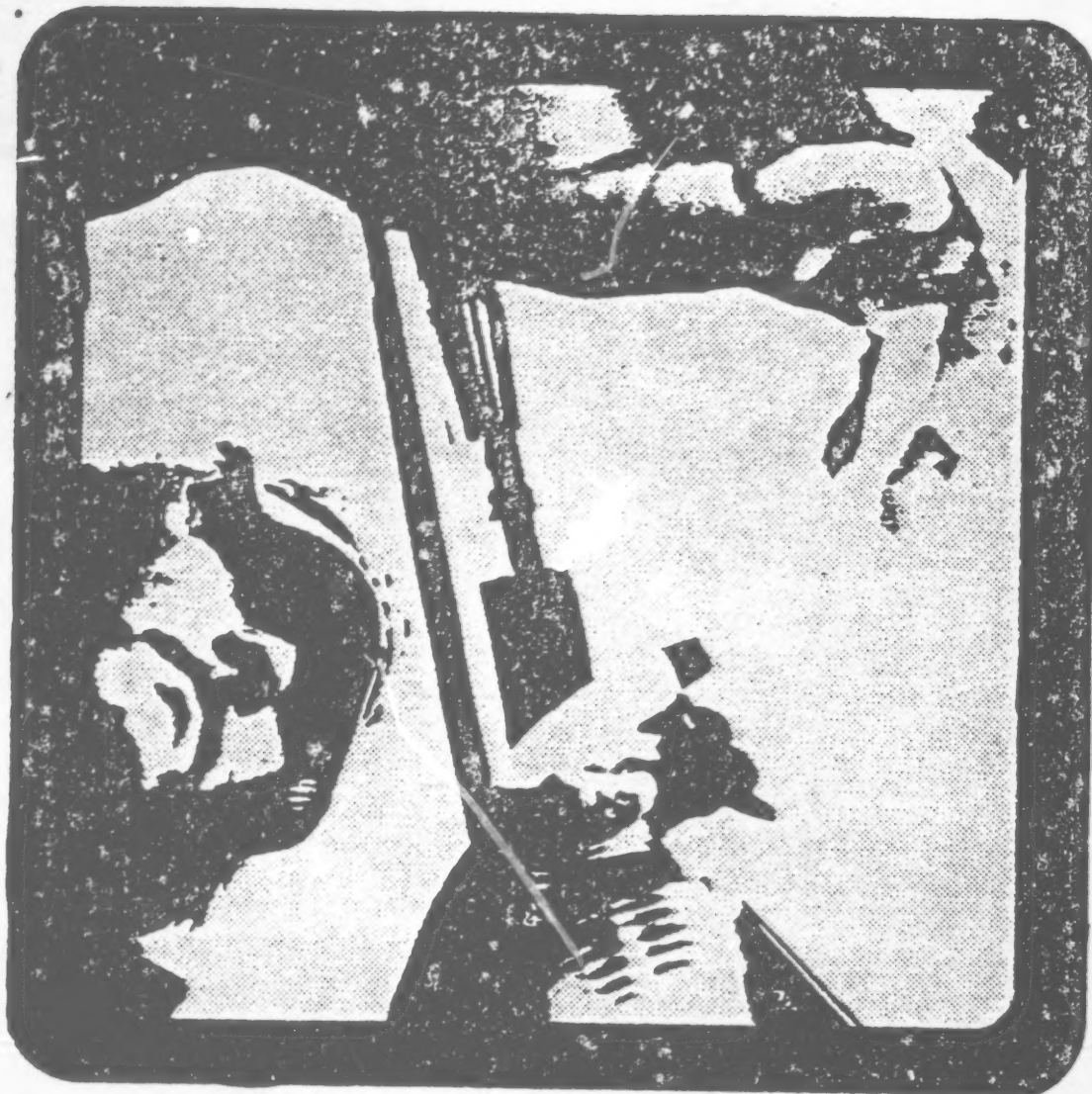
NOTE: BE CAREFUL NOT TO DRIP WAX!

JOB STEPS

16. TIGHTLY CLOSE CAP ON SOAP AND WAX.



17. PUT AWAY ALL EQUIPMENT. PUT DIRTY CLOTHS IN THE PROPER CONTAINER.



building maintenance & engineering

unit: MAINTENANCE

capital area career center

module: 2201 02 018 3 date: 5/77 level:

skill title: REPLACE BROKEN FLOOR TILE

developed & written by: DEBRA CONSTANTINI

visuals by:

WORD GUIDE

PROPANE TORCH - SMALL HAND TORCH.

ASBESTOS STRIPS - THIN PAPER THAT
RESISTS FIRE.

PERFORMANCE OBJECTIVEYOU ARE GOING TO LEARN:

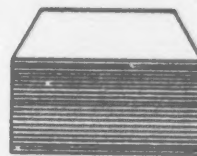
HOW TO REMOVE AND REPLACE A FLOOR TILE.

AND IN ORDER TO DO THIS YOU WILL NEED:

PROPANE TORCH



PUTTY KNIFE



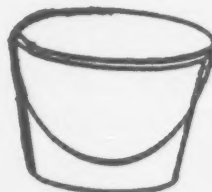
TILE



CEMENT (TILE)



MATCHES



PAIL OF WATER

4 ASBESTOS STRIPS
(4 INCHES BY 12 INCHES)1 INCH
PAINT BRUSH

PAPER TOWEL



SCREWDRIVER



1 HEAVY, OLD BOOK

SAFETY
GLASSESWE WILL KNOW YOU CAN DO IT WHEN:

1. YOU CAN REMOVE THE OLD TILE AND REPLACE IT WITH A NEW TILE.
2. THEN, YOU CAN FIT THE NEW TILE TO THE FLOOR PATTERN SO THAT NO TILE CEMENT SHOWS.

INFORMATION

FLOOR TILES SOMETIMES WEAR OUT OR BREAK. THESE RUINED TILES MUST BE REPLACED. A PERSON MIGHT TRIP AND INJURE HIMSELF/HERSELF ON A BROKEN TILE.

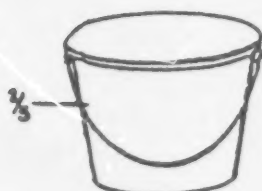
OFTEN, A BUILDING'S EXTRA TILES ARE KEPT IN A STORAGE AREA. LOOK AROUND IN THE STORAGE AREAS IN YOUR BUILDING FOR EXTRA TILES.

THE EASIEST WAY TO REMOVE OLD TILES IS BY USING HEAT. HEAT
MELTS THE TILE CEMENT SO THE TILE CAN BE REMOVED.

* CAUTION! DO NOT LEAVE THE HEAT ON ONE SPOT FOR *
* TOO LONG BECAUSE YOU WILL BURN THE TILE. BE SURE *
* TO MOVE THE TORCH AROUND IN CIRCLES. *
* *

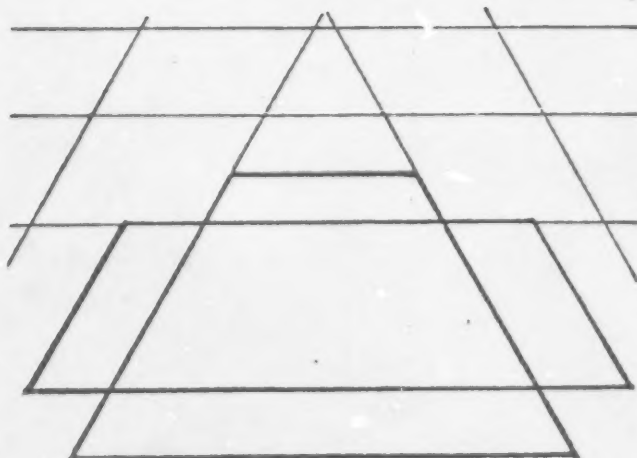
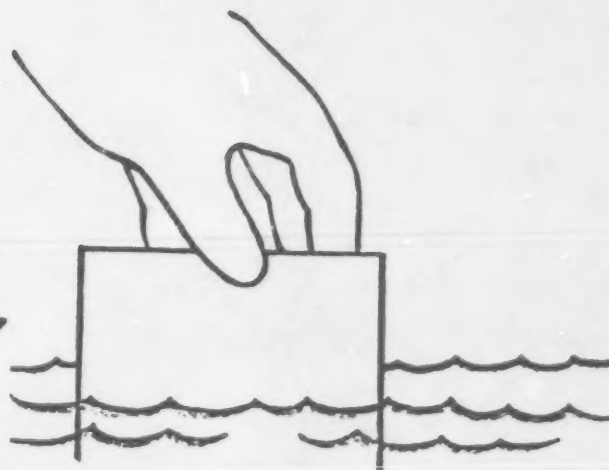
JOB STEPS

1. GET ALL THE EQUIPMENT YOU WILL NEED AND TAKE IT TO YOUR WORK AREA.



2. FILL A PAIL $\frac{2}{3}$ FULL WITH CLEAN WATER.

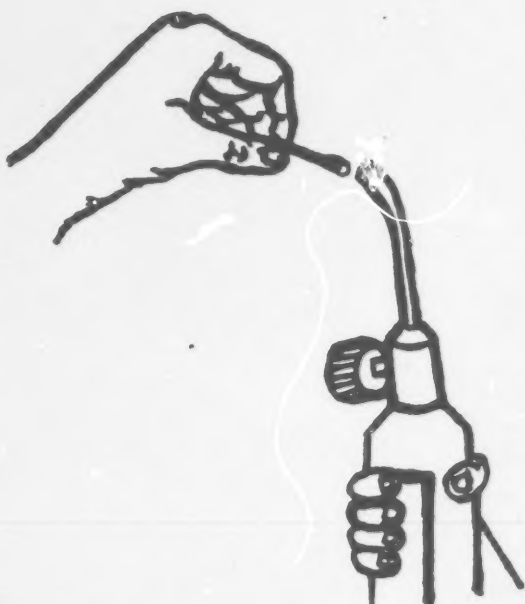
3. PUT ASBESTOS STRIPS INTO THE PAIL OF WATER.



4. LAY THE ASBESTOS STRIPS AROUND THE EDGES OF THE TILE YOU WILL REMOVE.

JOB STEPS

5. OPEN VALVE ON TORCH 1/4 TURN.
WEAR YOUR SAFETY GLASSES.



6. QUICKLY, LIGHT THE TORCH WITH
A MATCH.

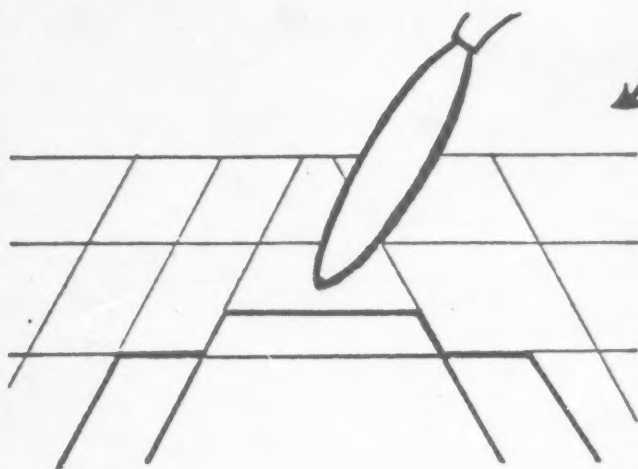
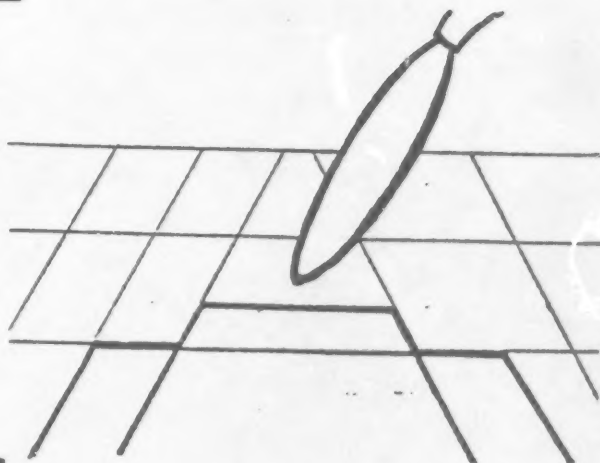
*
* CAUTION! THE FLAME IS VERY *
* HOT. POINT THE FLAME AWAY *
* FROM YOURSELF AND OTHERS *
* NEARBY. *

7. TURN THE VALVE, UNTIL THE FLAME
IS 1 1/2 INCHES LONG.



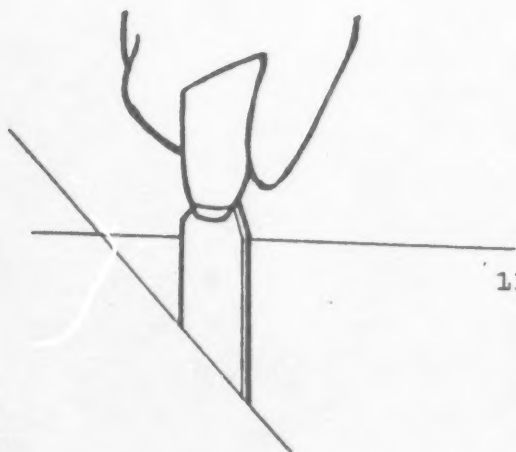
JOB STEPS

8. POINT THE TORCH AT THE MIDDLE OF THE TILE. DO NOT LET THE FLAME TOUCH THE TILE.



9. STARTING IN THE MIDDLE AND WORKING TOWARD THE OUTSIDE, MOVE THE TORCH AROUND THE TILE IN CIRCLES.

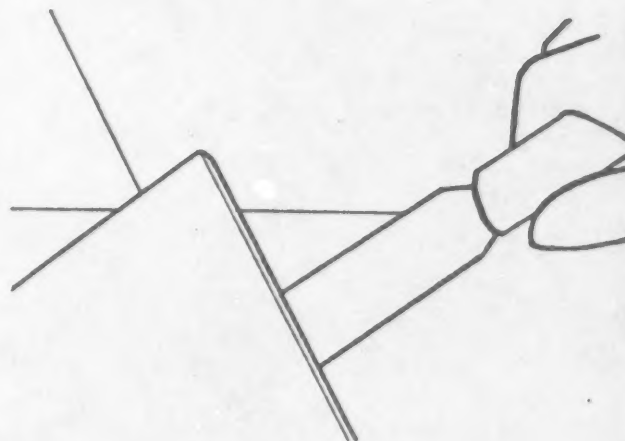
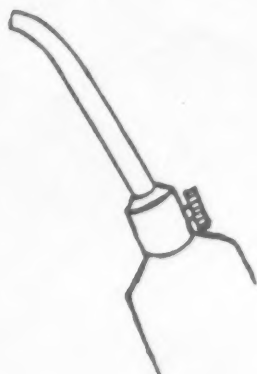
10. KEEP MOVING THE TORCH AROUND AND AROUND THE TILE FOR 2 MINUTES.



11. CAREFULLY PUSH THE BLADE OF A PUTTY KNIFE INTO THE CRACK AT THE EDGE OF THE TILE.

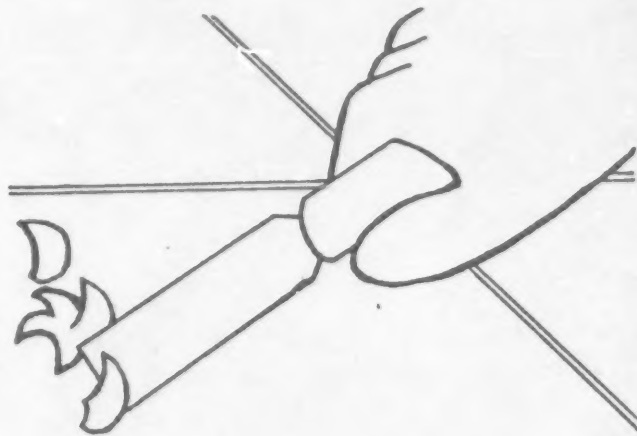
JOB STEPS

12. USING THE PUTTY KNIFE, SLOWLY LIFT UP THE TILE. IF IT DOESN'T COME UP, DO JOB STEPS 10, 11, AND 12 AGAIN.

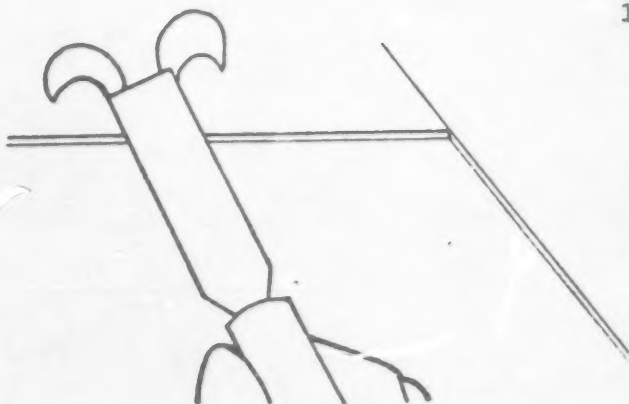


13. SHUT OFF TORCH.

14. USING THE PUTTY KNIFE, REMOVE THE OLD TILE.



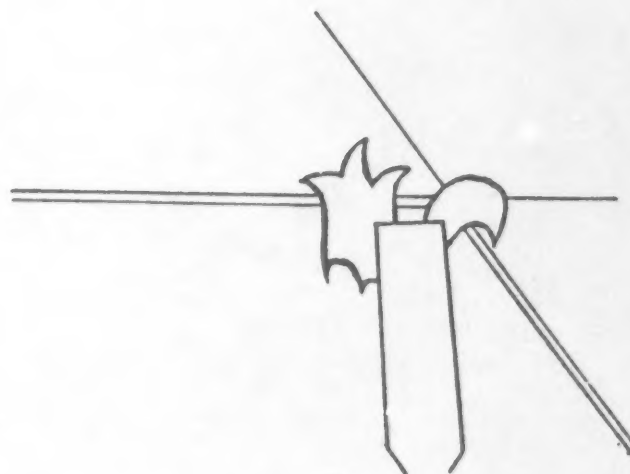
15. AGAIN, USING THE PUTTY KNIFE, SCRAPE OFF THE OLD TILE CEMENT.



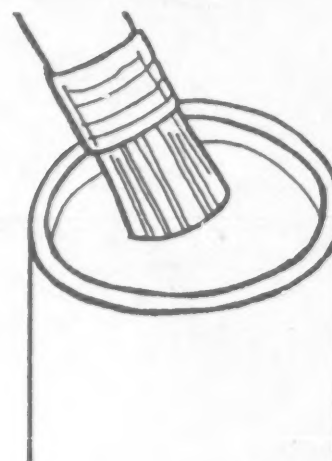
 * CAUTION! DO NOT SLIP WHEN *
 * PUSHING. THIS WILL CHIP *
 * THE OTHER TILES. *

JOB STEPS

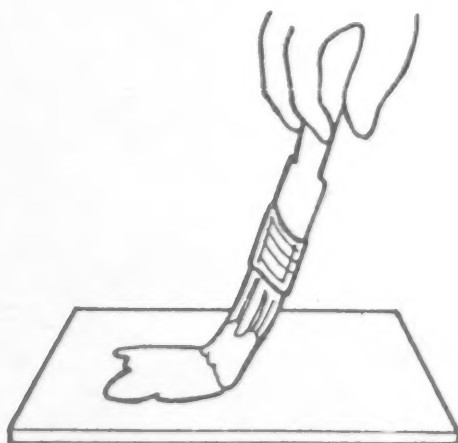
16. CLEAN CORNERS WELL OR THE NEW TILE WILL STICK UP.



17. WIPE OFF THE PUTTY KNIFE ON A PAPER TOWEL.



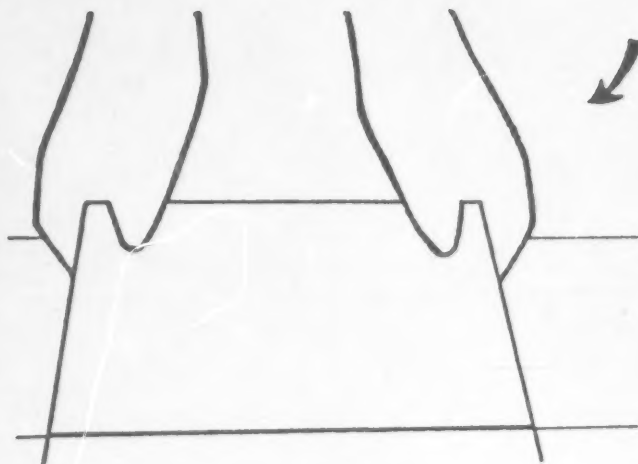
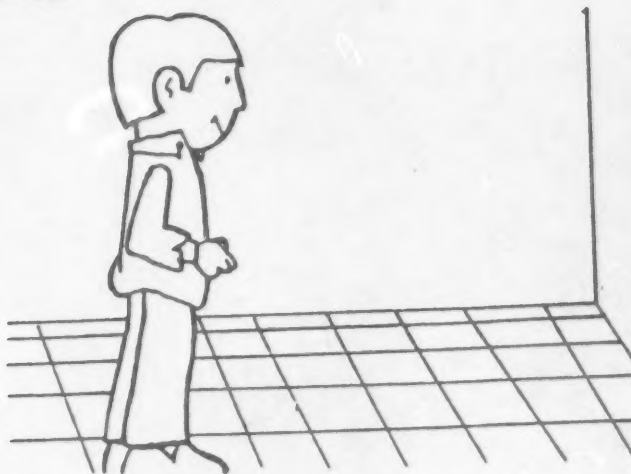
18. OPEN CAN OF TILE CEMENT AND DIP THE BRUSH 3/4 INCH INTO THE CAN.



19. BRUSH THE TILE CEMENT ONTO THE BOTTOM OF THE NEW TILE.

JOB STEPS

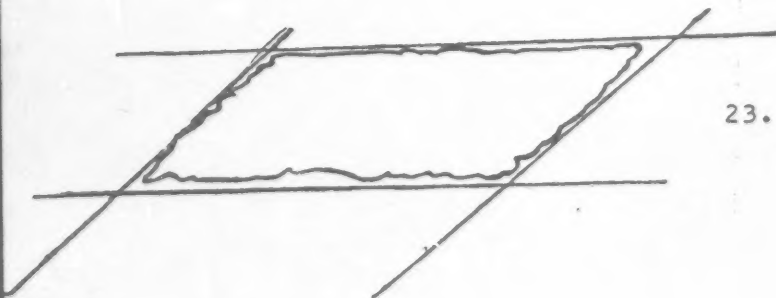
20. LOOK AT THE PATTERN OF TILE FLOOR.



21. THEN, FIT TILE INTO RIGHT PATTERN.



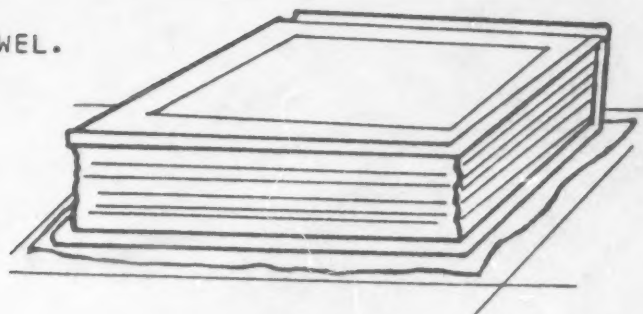
22. USING A PUTTY KNIFE AND A RAG, WIPE OFF ANY EXTRA TILE CEMENT.



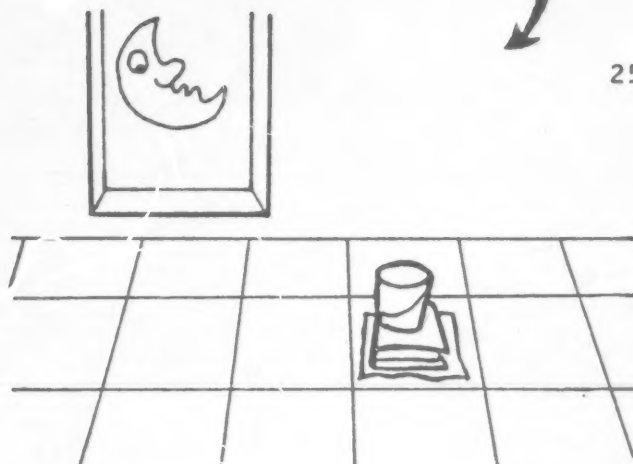
23. PLACE A PAPER TOWEL OVER THE NEW TILE.

JOB STEPS

24. SET A BOOK OVER THE PAPER TOWEL.



25. PUT THE PAIL OF WATER ON THE BOOK. WAIT 24 HOURS BEFORE TAKING OFF PAIL, BOOK AND PAPER TOWEL.



26. PUT AWAY ALL EQUIPMENT.





building maintenance & engineering

unit: PLUMBING REPAIR

capital area career center

module: 2201 02 019 3 date: 5/77 level:

skill title: USE OF TUBING CUTTER (COPPER)

developed & written by: DEBORAH J. WHITE

visuals by: DAVE WEHRWEIN

WORD GUIDE

TUBE - LONG EMPTY PIPE.

BURRS - ROUGH EDGE FROM CUTTING METAL.

REAMER - TOOL USED TO MAKE HOLES BIGGER.

PERFORMANCE OBJECTIVEYOU ARE GOING TO LEARN:

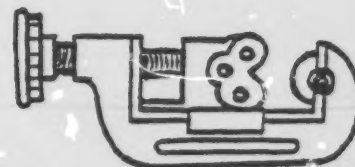
HOW TO CUT OFF A ONE-INCH PIECE OF TUBING.

AND IN ORDER TO DO THIS YOU WILL NEED:

PENCIL



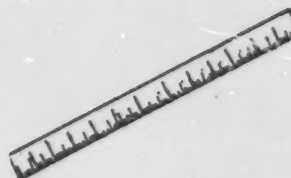
REAMER



TUBE CUTTER



1/2-INCH COPPER TUBING



12-INCH TAPE

SAFETY GLASSES

WE WILL KNOW YOU CAN DO IT WHEN:

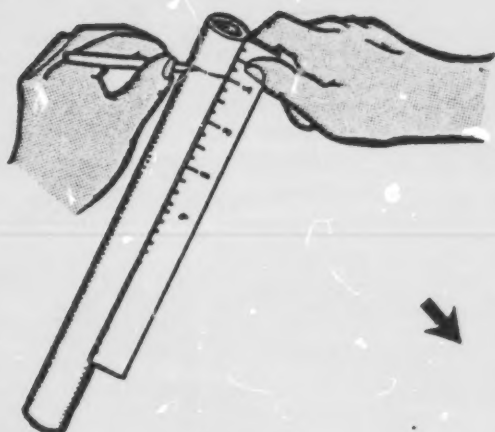
1. THE CUT IS ONE-INCH LONG.
2. YOUR CUT IS SMOOTH AND STRAIGHT AND YOU LEAVE NO BURRS ON THE TUBE EDGE.

JOB STEPS

FEED SCREW - KNOB AT END OF TUBE CUTTER THAT MOVES CUTTING WHEEL IN AND OUT.

CUTTING WHEEL - WHEEL THAT CUTS THE TUBE.

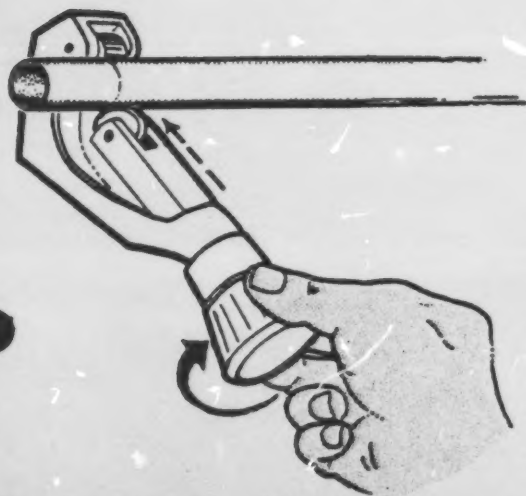
1. GET ALL YOUR EQUIPMENT AND GO TO YOUR WORK AREA.



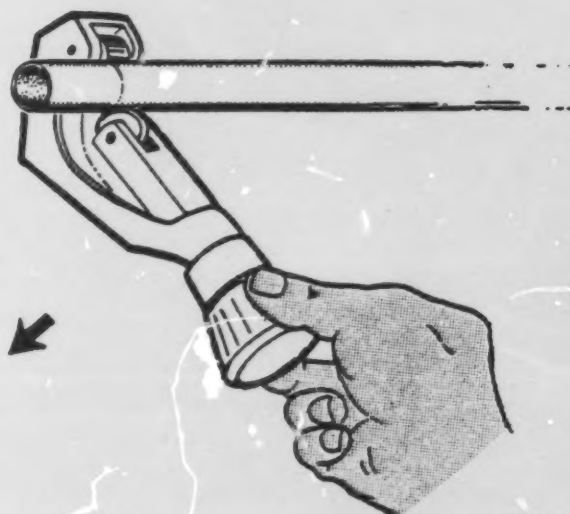
2. MEASURE AND MARK ONE INCH ON THE TUBE.



3. PUT THE TUBE INTO THE TUBE CUTTER.



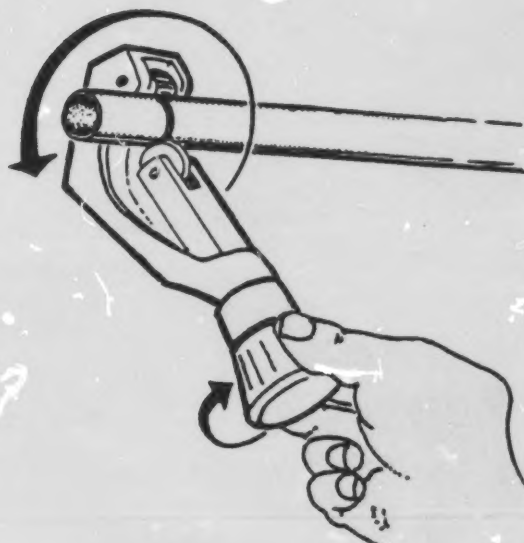
4. TURN THE FEED SCREW UNTIL CUTTING WHEEL IS ON THE MARK YOU MADE ON THE TUBE. WEAR YOUR SAFETY GLASSES.



JOB STEPSROTATE - TURN AROUND.CLOCKWISE - TO THE RIGHT.

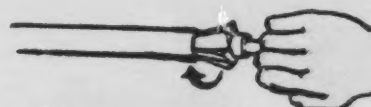
5. TO ROTATE CUTTER AROUND TUBE:
TURN FEED SCREW CLOCKWISE JUST A
LITTLE, EACH TIME YOU ROTATE
THE CUTTER.

6. REPEAT STEP 5 UNTIL TUBE IS CUT
OFF.



7. SWING REAMER BLADE OUT 90°. THEN,
PUT POINT INSIDE OF THE TUBE.

8. TURN EASILY. DO NOT PUSH HARD.
THIS WILL SMOOTH ROUGH BURRS.

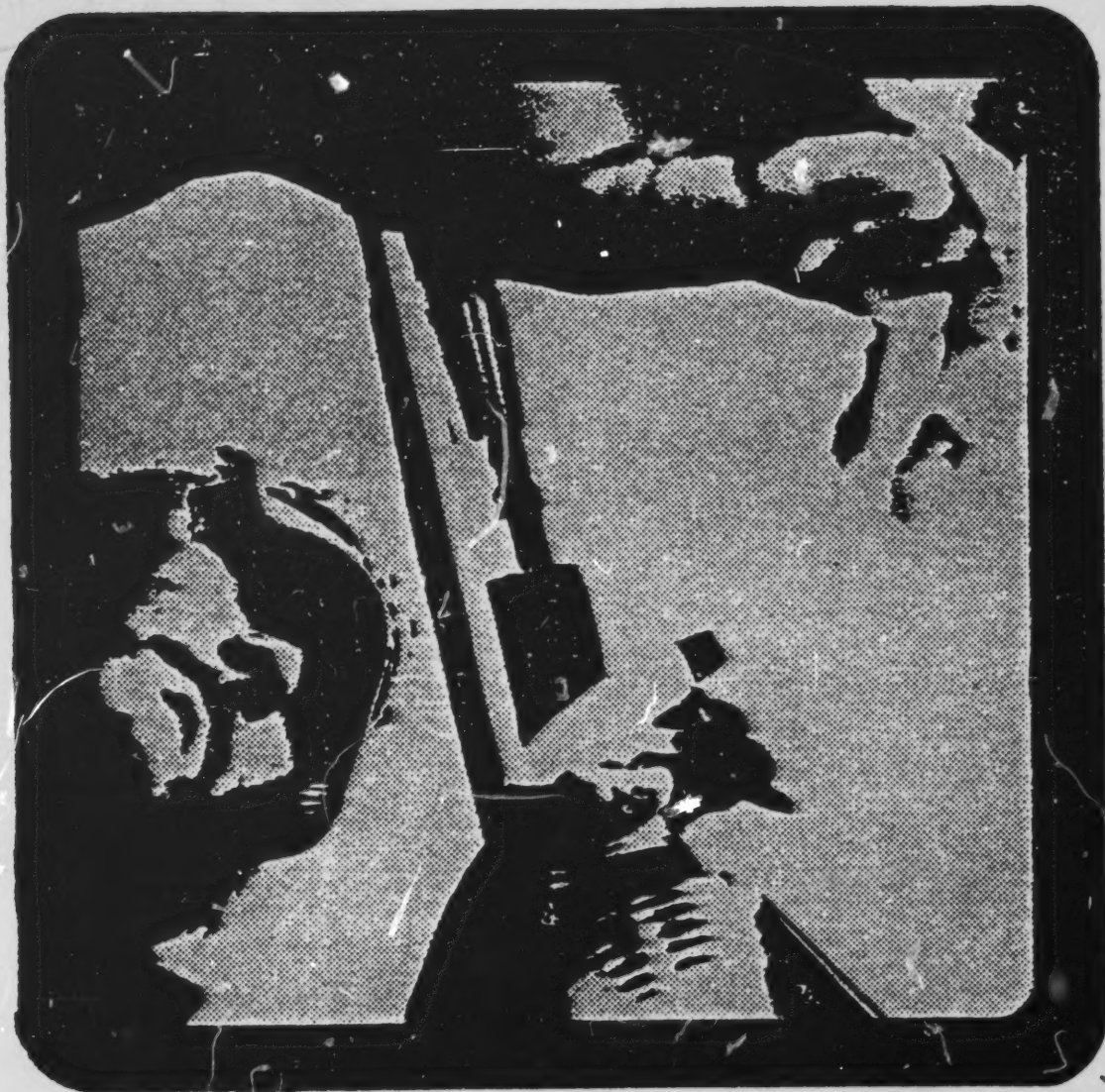


JOB STEPS

9. ASK YOUR INSTRUCTOR TO CHECK YOUR WORK. TELL YOUR INSTRUCTOR HOW TO CUT COPPER METAL WITH A TUBE CUTTER.



10. PUT AWAY ALL YOUR EQUIPMENT.



building maintenance & engineering

unit: GENERAL MAINTENANCE

capital area career center

module: 2201 02 020 3 date: 2/77 level:

skill title: USE OF A FLARING TOOL

developed & written by: DWIGHT SMITH

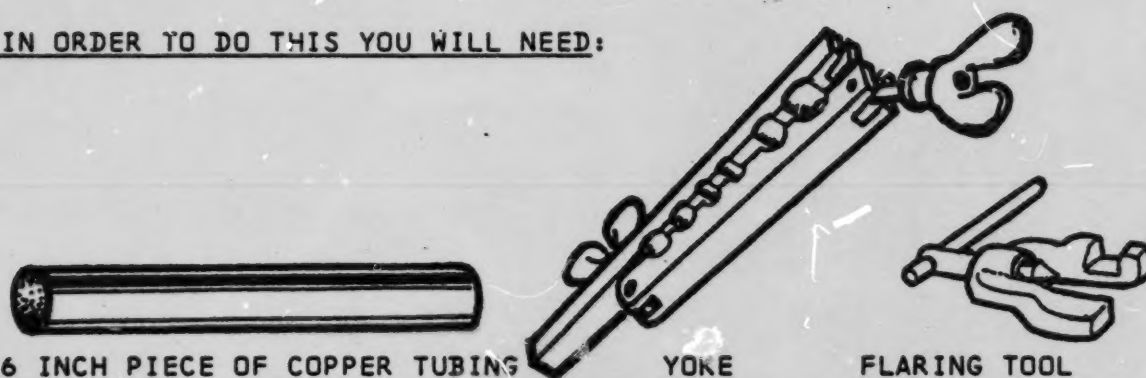
visuals by: DAVE WEHRWEIN

WORD GUIDE

FLARE - TO SPREAD OUTWARD.

PERFORMANCE OBJECTIVEYOU ARE GOING TO LEARN:

HOW TO FLARE A PIECE OF COPPER TUBING.

AND IN ORDER TO DO THIS YOU WILL NEED:WE WILL KNOW YOU CAN DO IT WHEN:

THE TUBING HAS BEEN FLARED EVENLY AT A 45° ANGLE ALL THE WAY AROUND.

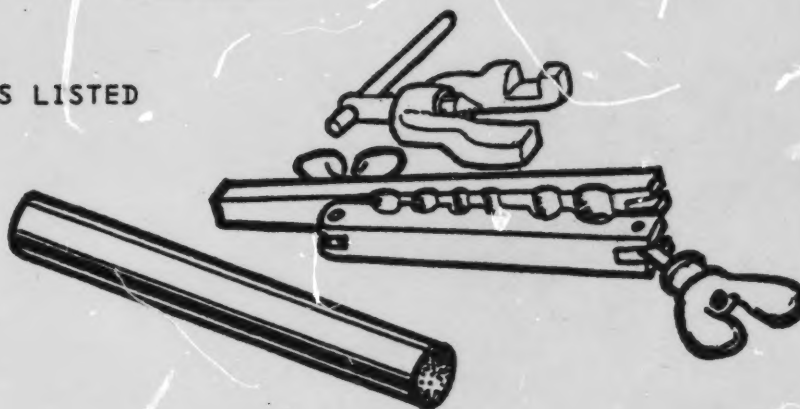
WORD GUIDE

WING NUT - A NUT WITH HANDLES FOR TIGHTENING.

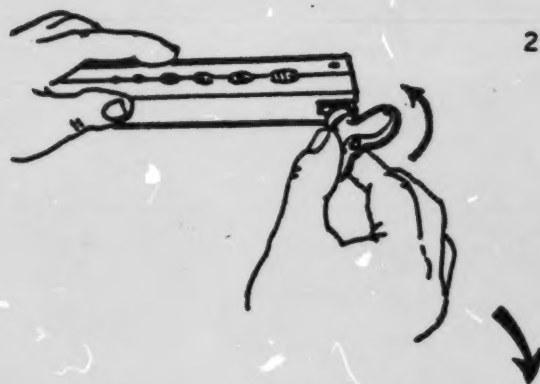
CHAMFERED - BEVELED OR SLANTED EDGE.

JOB STEPS

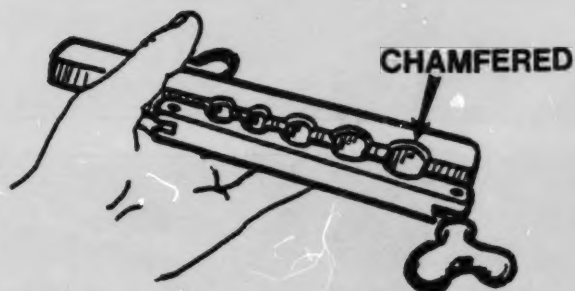
1. GET THE MATERIALS LISTED ON PAGE 2.



2. LOOSEN THE WING NUTS AND SEPARATE THE 2 PARTS OF THE TOOL.

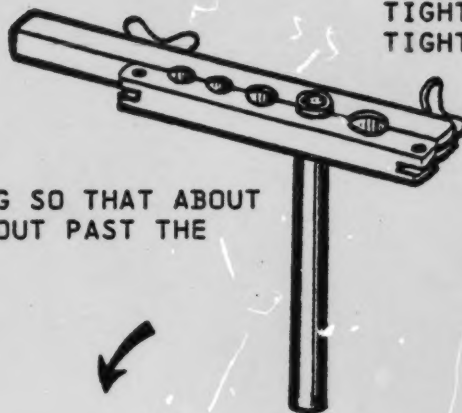


3. HOLD THE TOOL SO THAT THE CHAMFERED SIDE IS UP.

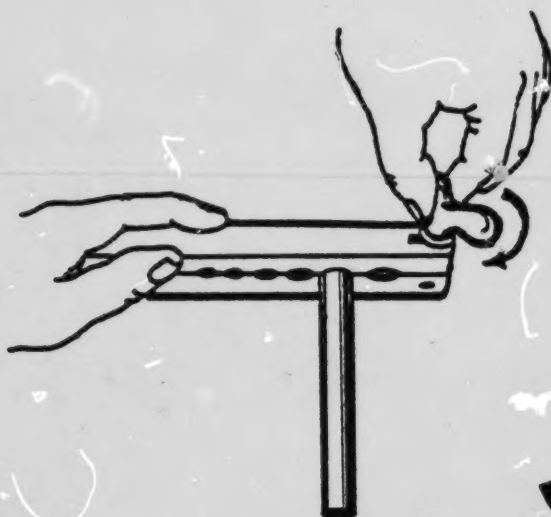


JOB STEPS

4. PUT THE TUBING INTO THE HOLE IN WHICH IT FITS BEST. IT SHOULD FIT SNUGLY, BUT NOT SO TIGHT THAT IT BENDS WHEN YOU TIGHTEN THE WING NUTS.

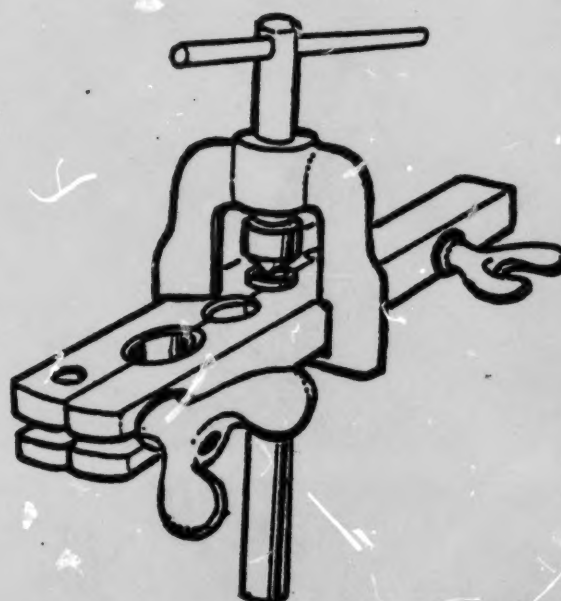


5. ADJUST THE TUBING SO THAT ABOUT 1/8 INCH STICKS OUT PAST THE TOOL FACE.



6. TIGHTEN THE WING NUT NEAREST THE TUBING FIRST. THEN TIGHTEN THE OTHER ONE. BE SURE THE TUBE CANNOT MOVE.

7. PLACE THE YOKE OVER THE TOOL SO THAT THE POINTED END OF THE COMPRESSOR IS OVER THE CENTER OF THE TUBING.



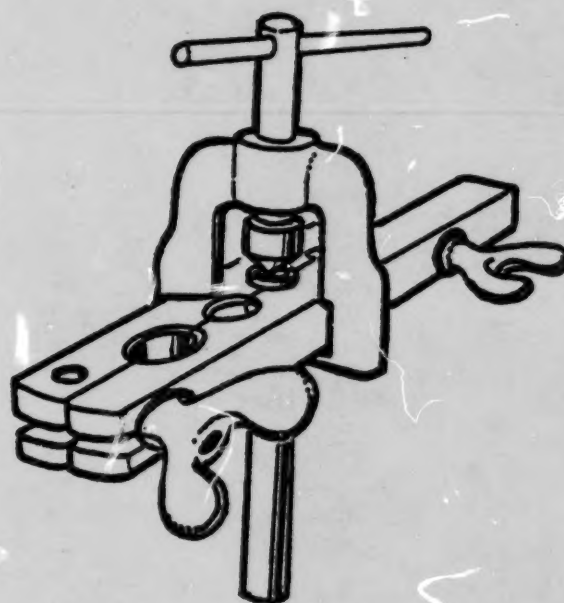
WORD GUIDE

YOKE - A CLAMP WITH COMPRESSOR SCREW.

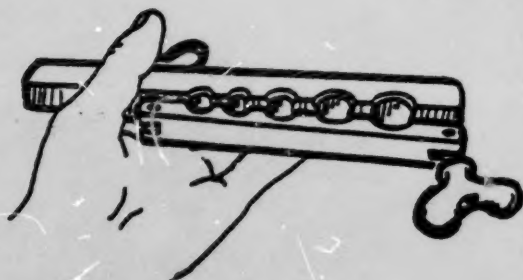
COMPRESSOR - SCREW WHICH PUTS PRESSURE ON THE END OF THE TUBING AND FLARES IT.

JOB STEPS

8. TURN THE COMPRESSOR SCREW AS FAR AS IT WILL GO.



9. LOOSEN THE COMPRESSOR SCREW AND REMOVE THE YOKE.



10. LOOSEN THE WING NUTS AND REMOVE THE TUBING.

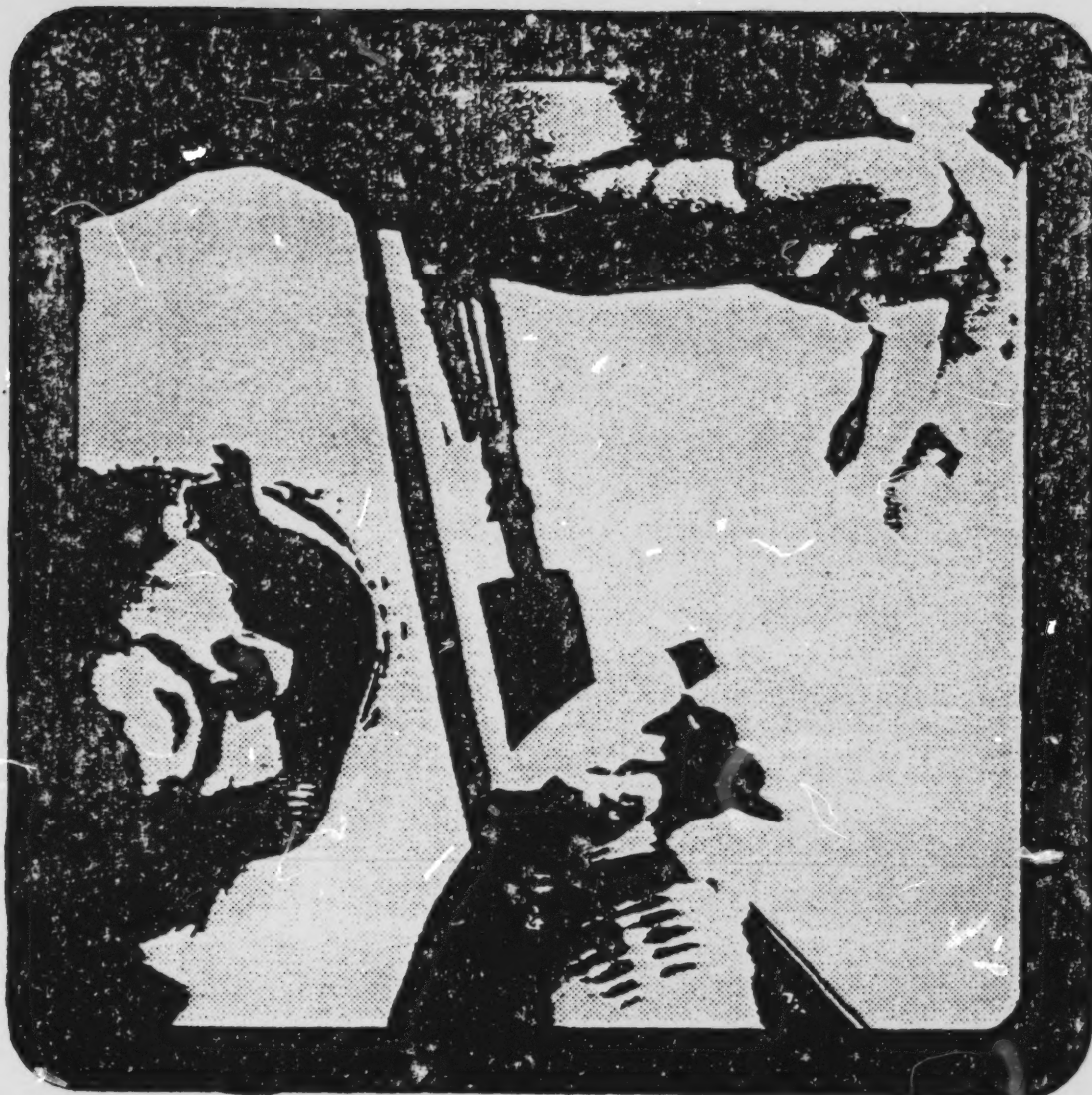
JOB STEPS

11. CHECK TO SEE IF THERE IS AN EVEN 45° LIP ALL AROUND THE TUBING.



12. GOOD WORK! YOU HAVE FLARED A PIECE OF TUBING.

13. PUT AWAY ALL EQUIPMENT.



building maintenance & engineering

unit: GENERAL MAINTENANCE

capital area career center

module: 2201 02 021 3 date: 7/77 level: _____

skill title: SWEATING COPPER TUBING

developed & written by: DEBORAH J. WHITE

visuals by: DAVE WEHRWEIN

SWEAT - JOIN TOGETHER WITH HEATED SOLDER.

FLUX - PASTE USED TO CLEAN METAL OF OXIDE AND WHICH HELPS JOIN THEM TOGETHER.

OXIDE - SCALE THAT FORMS ON METAL.

SOLDER - TYPE OF METAL THAT, WHEN MELTED, CAN JOIN TWO OTHER PIECES OF METAL. 50/50 SOLDER IS MADE OF HALF LEAD, HALF TIN.

PERFORMANCE OBJECTIVE

YOU ARE GOING TO LEARN:

HOW TO SWEAT COPPER FITTINGS AND TUBING TOGETHER.

AND IN ORDER TO DO THIS YOU WILL NEED:



TUBE CUTTER



SANDCLOTH OR
STEEL WOOL



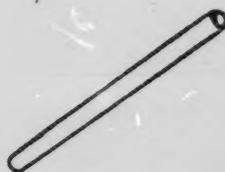
SMALL STIFF-
BRISTLED BRUSH



BUTANE
TORCH



CLEAN CLOTH



12 INCHES OF
1/2 COPPER TUBING



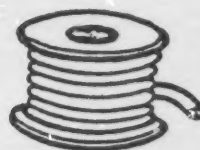
300 ONE 1/2 COPPER
90° ELBOW



RULER AND
PENCIL



SOLDERING
FLUX



ROLL OF 50/50
SOLDER



DEBURRING
TOOL

SAFETY
GLASSES

WE WILL KNOW YOU CAN DO IT WHEN:

YOU HAVE SWEATED A SMOOTH JOINT SO THAT IT DOES NOT LEAK.

INFORMATION

THERE ARE FIVE STEPS TO SOLDERING THAT YOU SHOULD KNOW. THEY ARE:

1. MEASUREMENTS
2. CUTTING TUBING
3. PRECLEANING
4. FLUXING
5. ASSEMBLY

READ MODULE 2201 02 019; USE OF THE TUBE CUTTER.

JOB STEPS

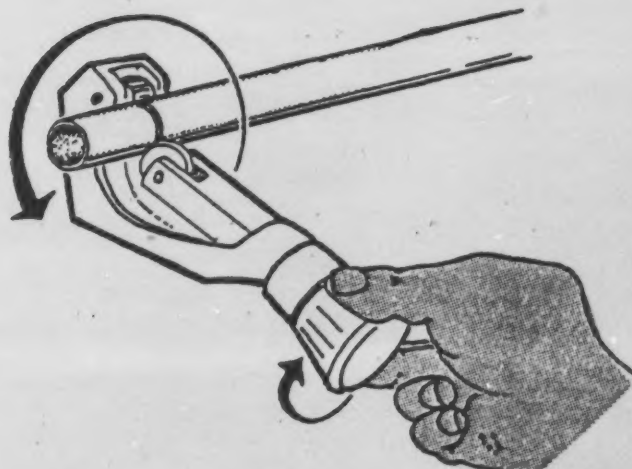
1. GET ALL YOUR EQUIPMENT AND TAKE IT TO YOUR WORK AREA.



2. MEASUREMENT: USING YOUR RULER AND PENCIL, MARK THE TUBING 6 INCHES FROM THE END.

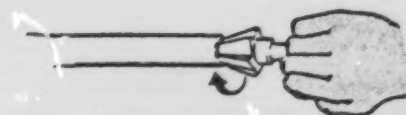


3. CUT TUBING AT THE 6 INCH MARK WITH YOUR TUBING CUTTER.



WORD GUIDEDEBURR - SMOOTH SHARP EDGES.JOB STEPS

4. DEBURR THE TUBE BY TWISTING THE DEBURRING TOOL.



5. PRECLEANING: USE SANDCLOTH OR STEEL WOOL TO CLEAN END OF TUBE THAT WILL GO INTO THE FITTING.



6. ALSO, CLEAN THE CUP OF THE FITTING BORE.



WORD GUIDE

ABRASIVES - SMALL PIECES LEFT FROM FILLING OR GRINDING.

BUTANE TORCH - SMALL GAS BURNER USED FOR JOINING METALS.

JOB STEPS

7. USE CLEAN CLOTH TO WIPE BOTH CLEAN OF ABRASIVES, FITTING OR GRIT.

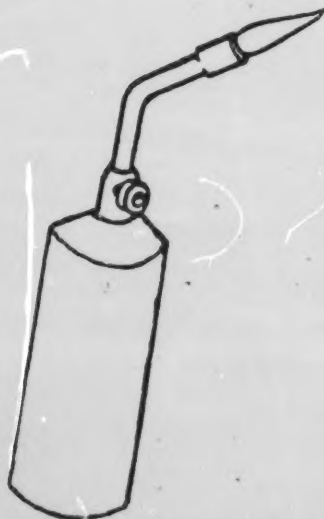


8. FLUXING: USING A SMALL BRUSH, WIPE A THIN LAYER OF FLUX ON PARTS YOU CLEANED.

9. ASSEMBLY: TWIST 90° ELBOW ONTO TUBE.



10. LIGHT BUTANE TORCH.



 CAUTION - BE CAREFUL NOT TO
 BURN YOURSELF! POINT FLAME
 AWAY FROM YOURSELF AND
 OTHERS.

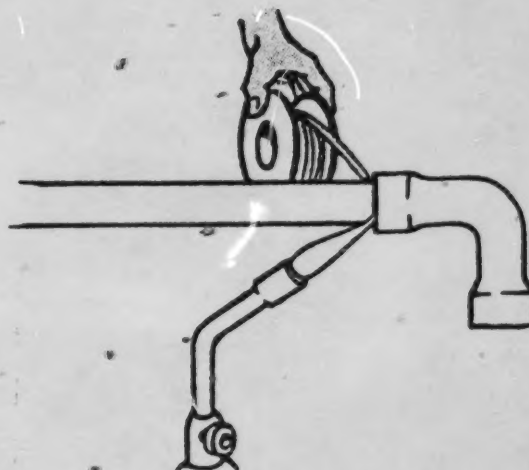
JOB STEPS

11. AIM FLAME AT THE FITTING. TURN THE TUBE SO ALL SIDES WILL GET HOT.



12. WHEN METAL IS VERY HOT, TAKE AWAY BUTANE TORCH. SOLDER WILL MELT WHEN IT TOUCHES THE TUBE.

13. PUT ON SOLDER AS SHOWN IN PICTURE. WHEN SOLDER BEGINS TO DRIP FROM BOTTOM OF THE FITTING, THE JOINT IS FILLED.



14. USING CLEAN CLOTH, WIPE UP DRIP BEFORE IT GETS HARD.

JOB STEPS

15. AFTER JOINT COOLS, WIPE WITH A RAG.



16. ASK YOUR INSTRUCTOR TO SEE IF YOU HAVE SWEATED A SMOOTH JOINT SO THAT IT DOES NOT LEAK.

17. PUT AWAY ALL OF YOUR EQUIPMENT.





building maintenance & engineering

unit: GENERAL MAINTENANCE

capital area career center

module: 2201 02 022 3 date: 5/77 level:

skill title: SOLDERING COPPER "T" INTO EXISTING LINE

developed & written by: DEBORAH J. WHITE

visuals by:

WORD GUIDE

"TEE" OR "T" - COPPER FITTING THAT
FITS COPPER TUBING.

PERFORMANCE OBJECTIVEWHAT YOU ARE GOING TO LEARN:

HOW TO PLACE A "T" IN A WATER LINE.

AND IN ORDER TO DO THIS YOU WILL NEED:

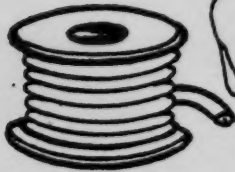
TUBE CUTTER



PROPANE TORCH



FLUX (SOLDERING)



SOLDER 50/50



RAGS



FLUX BRUSHES



EMERY CLOTH



FIRE EXTINGUISHER



EXISTING 1/2 INCH COPPER WATER LINE

WORD GUIDE

CONNECTION - SOMETHING WHICH JOINS
ONE THING TO ANOTHER.

... YOU WILL NEED:

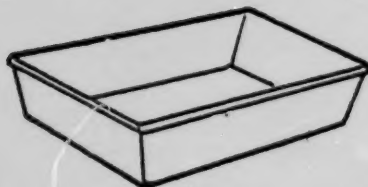
1/2 X 1/2 X 1/2 COPPER "T"



SAFETY GLASSES



HAND REAMER



DRIP PAN



ASBESTOS PAPER

WE WILL KNOW YOU CAN DO IT WHEN:

1. YOU HAVE SOLDERED EVENLY ALL AROUND THE CONNECTION AND YOU HAVE LEFT NO SOLDER SMEARED ON COPPER PIPE.
2. PRESSURE WILL NOT CAUSE THE CONNECTION TO LEAK.

INFORMATION

READ MODULE 2201 02 019 3, USE OF TUBING CUTTER.

REAL MODULE 2201 02 021 3, SWEATING COPPER TUBING.

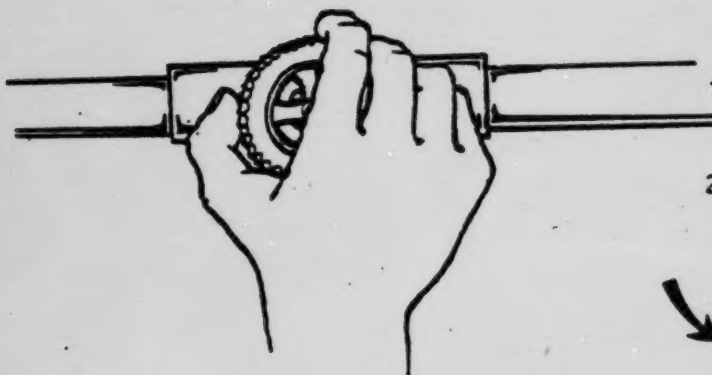
YOU MUST KNOW ALL WORDS AND DIAGRAMS IN THESE MODULES. LEARN THEM.

JOB STEPS

1. GET ALL EQUIPMENT AND TAKE IT TO YOUR WORK AREA.



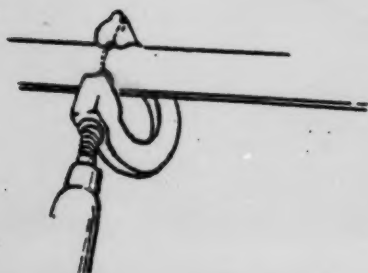
2. TURN OFF PRESSURE ON THE LINE.



3. OPEN NEAREST HOT AND COLD VALVES OR FAUCETS. LEAVE THEM OPEN.

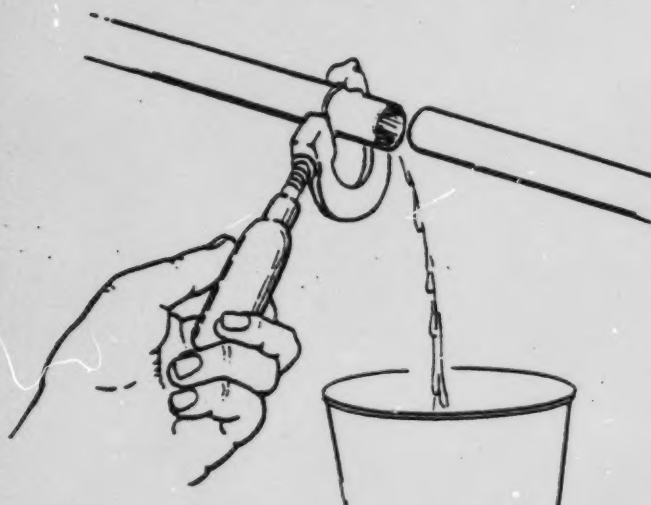


4. USING TUBE CUTTER, CUT LINE.

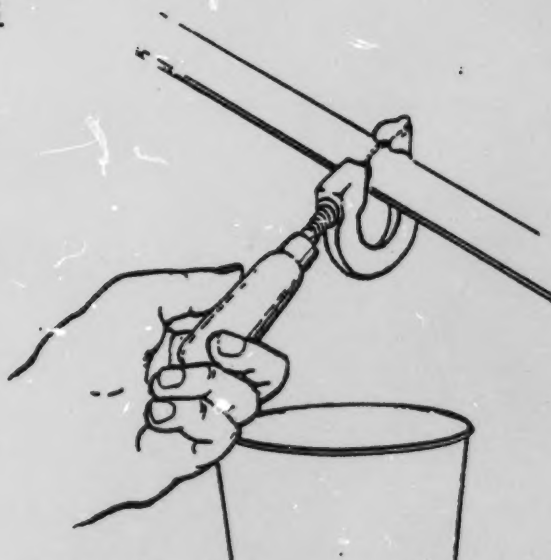


JOB STEPS

5. PUT A DRIP PAN UNDER THE PLACE WHERE YOU WILL CUT. LET WATER RUN OUT OF LINE INTO DRIP PAN.



6. MAKE ANOTHER CUT 1/2-INCH FROM YOUR FIRST CUT. NOW, A "T" FITTING CAN GO IN THIS SPACE.



7. TO SMOOTH ROUGH EDGES, TURN THE HAND REAMER IN BOTH ENDS OF THE TUBING.



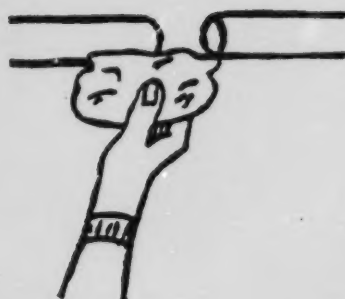
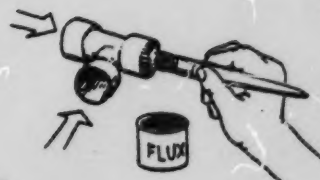
8. USING 1/2-INCH WIRE BRUSH, CLEAN ALL 3 ENDS OF THE "T".



JOB STEPSWORD GUIDE

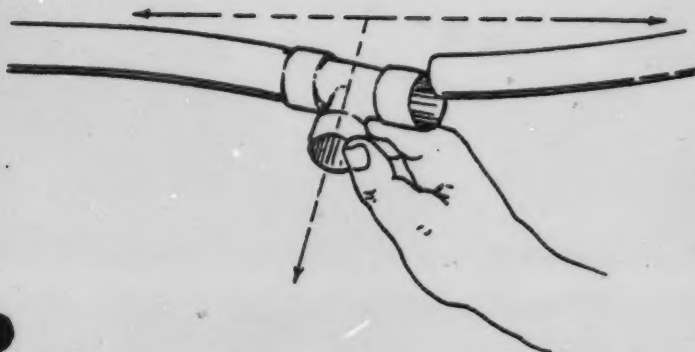
FLUX - LIQUID USED IN SOLDERING.

9. BRUSH A THIN LAYER OF FLUX ON THE PLACES YOU JUST CLEANED.



10. USING EMERY CLOTH, CLEAN BOTH ENDS OF THE LINE YOU JUST CUT.

11. PUT FLUX ON THE AREAS YOU JUST CLEANED.

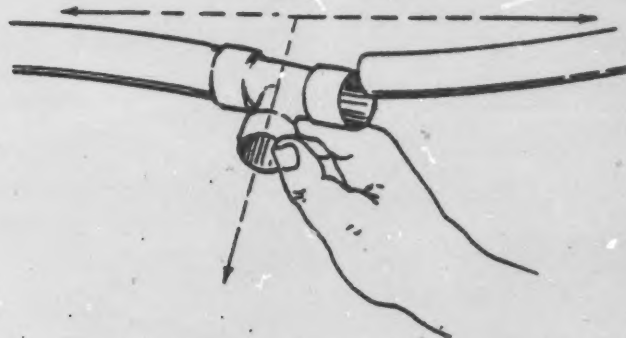


12. PUT "T" INTO LINE BY CAREFULLY SPREADING LINE APART.

JOB STEPSWORD GUIDE

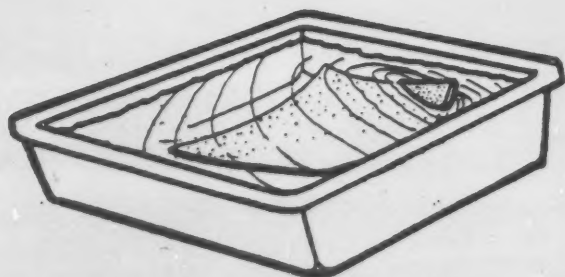
ALIGN - PUT "IN LINE" OR AT THE SAME LEVEL.

13. THEN, ALIGN THE LEAD OPENING OF THE "T" THE WAY YOU WANT IT TO GO.



14. TAKE EVERYTHING THAT WILL BURN (WOOD, PAPERS, OR RAGS), OUT OF YOUR WORK AREA.

15. PUT A FIRE EXTINGUISHER NEAR YOUR WORK AREA.



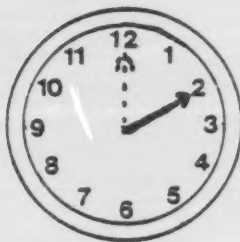
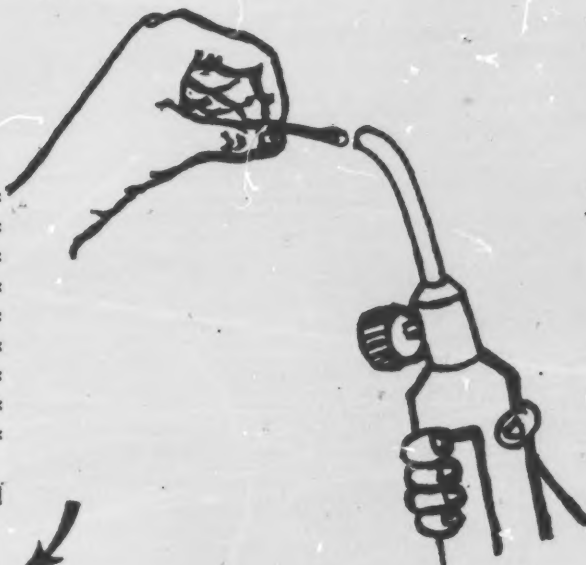
16. SOAK ASBESTOS PAPER IN WATER AND USE IT TO COVER ANY AREA THAT MAY CATCH ON FIRE.

JOB STEPS

17. LIGHT THE PROPANE TORCH.

 *
 * CAUTION: BE CAREFUL NOT *
 * TO BURN YOURSELF. POINT *
 * FLAME AWAY FROM YOURSELF *
 * AND OTHERS NEARBY. PUT *
 * ON SAFETY GLASSES! *
 *

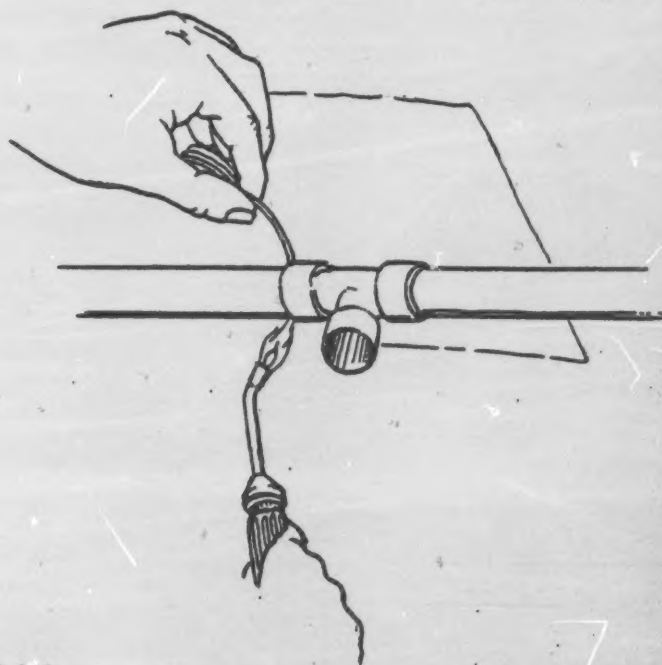
ASK YOUR INSTRUCTOR TO WATCH
 YOU.



18. AIM THE FLAME AT THE BOTTOM
 OF THE FITTING TO BE SOLDERED
 AND KEEP IT MOVING. HEAT FOR
 TEN SECONDS (COUNT TO 10 SLOWLY
 —THIS IS ABOUT THE RIGHT TIME.
 USE A CLOCK OR WATCH IF YOU
 CAN.)

19. AFTER 10 SECONDS, TOUCH THE END
 OF THE WIRE SOLDER TO THE TOP
 OF THE FITTING END. IF IT IS
 HOT ENOUGH, THE SOLDER WILL
 MELT BETWEEN THE FITTING AND
 THE PIPE.

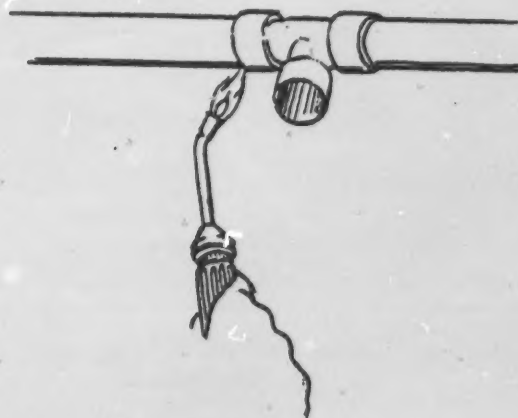
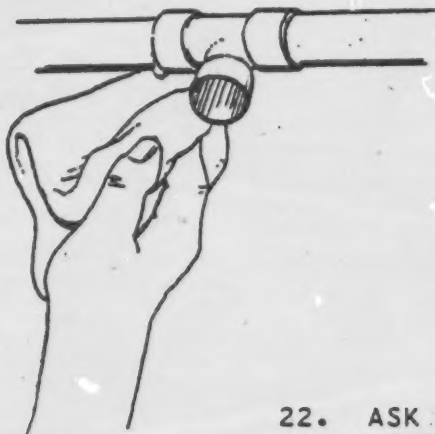
NOTE: MOVE SOLDER ALL AROUND
 PIPE QUICKLY AND THEN STOP.



JOB STEPS

20. IF THE SOLDER DOES NOT MELT WHEN YOU TOUCH IT TO THE FITTING, HEAT IT LONGER. TRY STEP 19 AGAIN: MOVE SOLDER ALL AROUND THE PIPE QUICKLY AND THEN STOP.

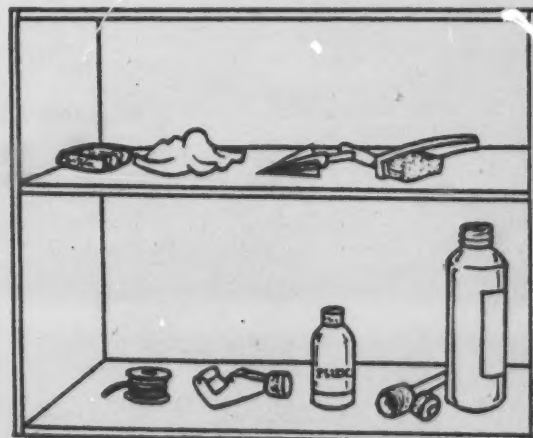
NOTE: DO NOT USE TOO MUCH SOLDER. IF YOU USE TOO MUCH, IT WILL DRIP AND HANG AT THE BOTTOM OF THE PIPE WHEN IT DRIES.

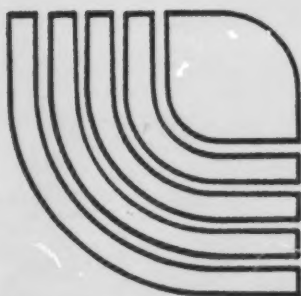
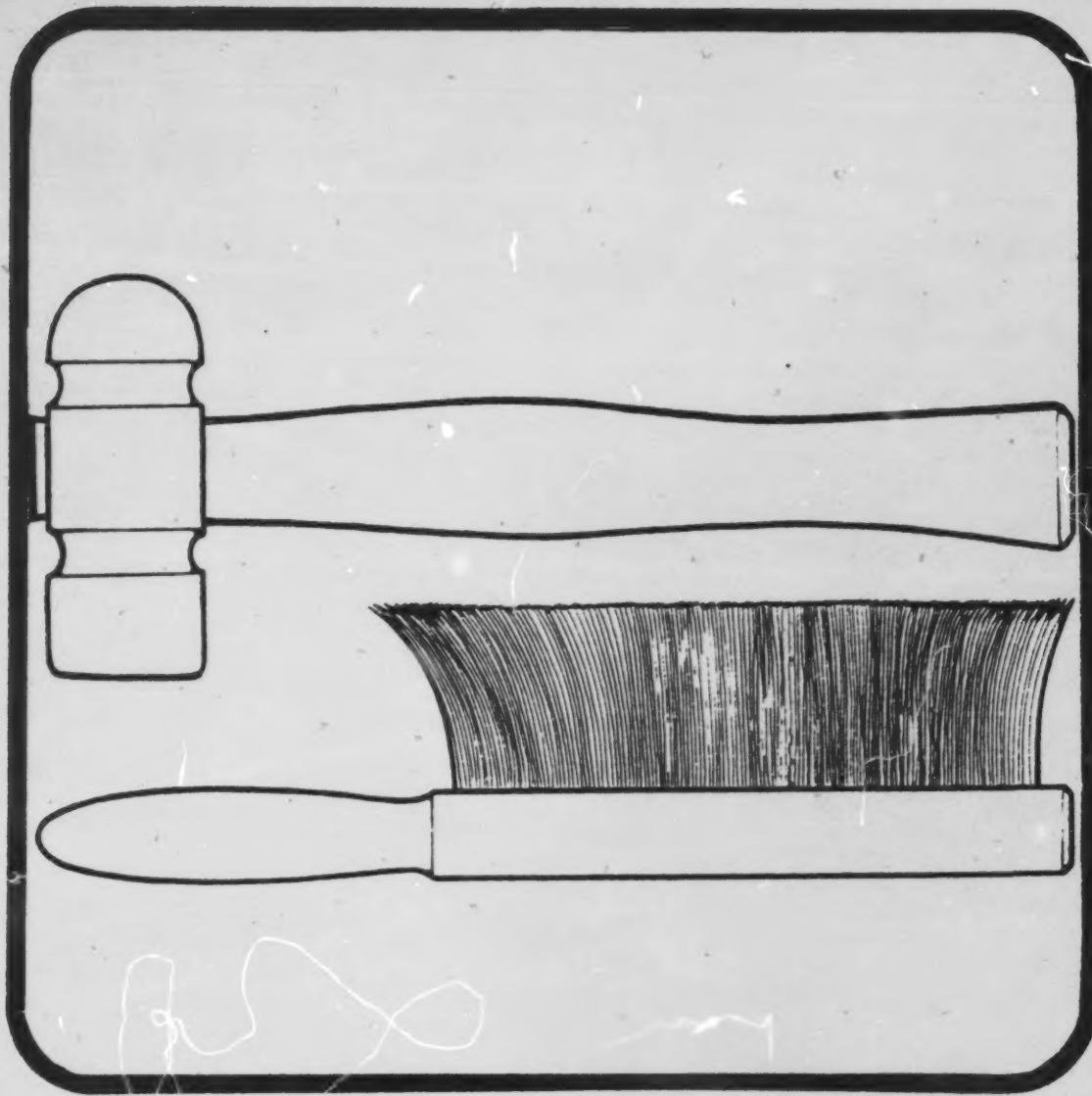


21. IF YOU USE TOO MUCH SOLDER AND IT DRIPS, HEAT THE HARD KNOB AND USE A CLOTH TO QUICKLY WIPE OFF THE HOT SOLDER.

22. ASK YOUR INSTRUCTOR TO CHECK YOUR WORK. TELL YOUR INSTRUCTOR HOW TO SOLDER A COPPER "T" INTO AN EXISTING LINE.

23. PUT AWAY YOUR EQUIPMENT.





building maintenance & engineering

unit: GENERAL MAINTENANCE

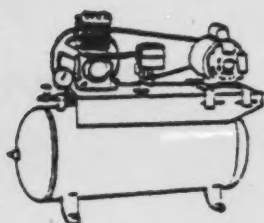
capital area career center

module: 2201 02 023 3 date: APRIL 1977 level:

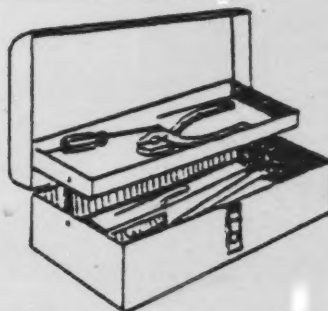
skill title: SERVICING AIR COMPRESSORS

developed & written by: DEBORAH J. LIVINGSTON-WHITE

visuals by: BRUCE BENNETT

WORD GUIDESCHEDULE - A TIME TABLE.MAINTENANCE - TO CHECK OR REPAIR
AS NEEDED.PERFORMANCE OBJECTIVEWHAT YOU ARE GOING TO LEARN:HOW TO SERVICE AND MAINTAIN AN AIR COMPRESSOR ACCORDING
TO A SCHEDULE.AND IN ORDER TO DO THIS YOU WILL NEED:

AIR COMPRESSOR



SMALL TOOL KIT

SMALL PAINT
BRUSH

OIL



SMALL FUNNEL



OIL PAN

PERFORMANCE OBJECTIVE

STEEL POCKET RULER



WIPING CLOTH

WE WILL KNOW YOU CAN DO IT WHEN:

1. YOU CORRECTLY NAME THE PARTS OF AN AIR COMPRESSOR.
2. YOU DO WEEKLY MAINTENANCE ON THE AIR COMPRESSOR.
3. YOU DO 3-MONTH MAINTENANCE ON THE AIR COMPRESSOR.

INFORMATION

LOOK AT THE PICTURES OF THE PARTS OF THE COMPRESSOR. THE AIR COMPRESSOR HAS THE FOLLOWING PARTS:

FIG. A. AIR COMPRESSOR TANK - WHERE THE AIR IS COMPRESSED AND STORED.

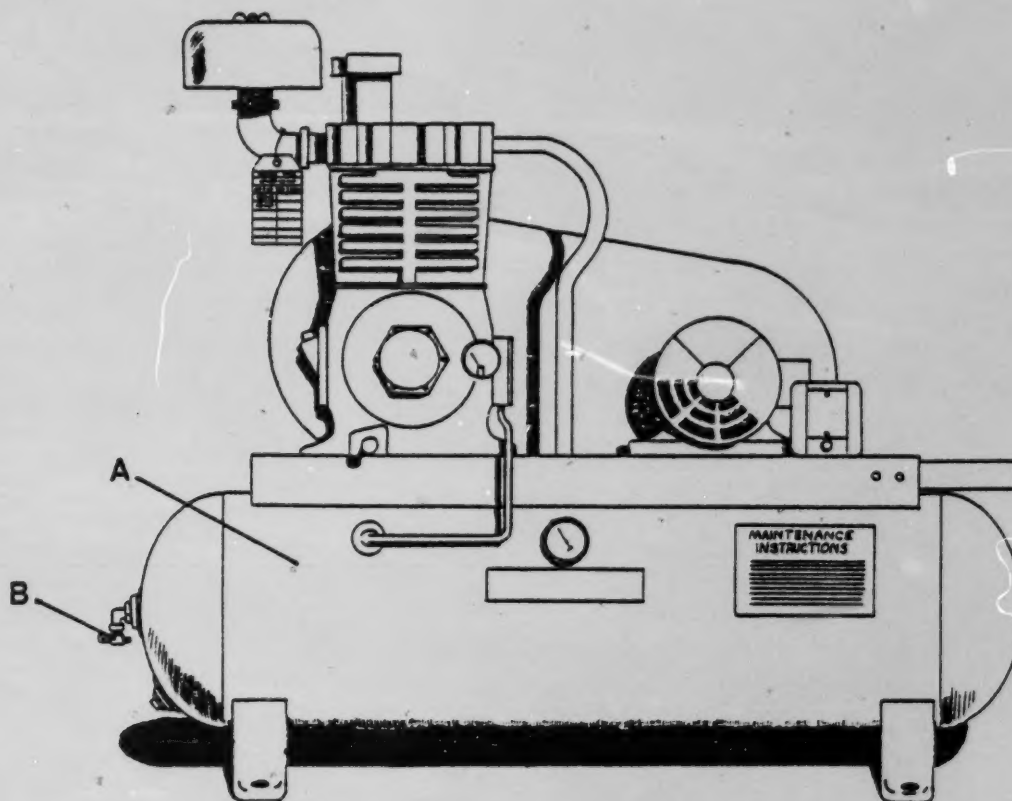


FIG. B. DRAIN VALVE - USED TO DRAIN WATER FROM TANK.

INFORMATION

FIG. C. PRESSURE GAUGE - SHOWS THE PRESSURE OF THE AIR IN THE TANK IN POUNDS PER SQUARE INCH (P.S.I.).

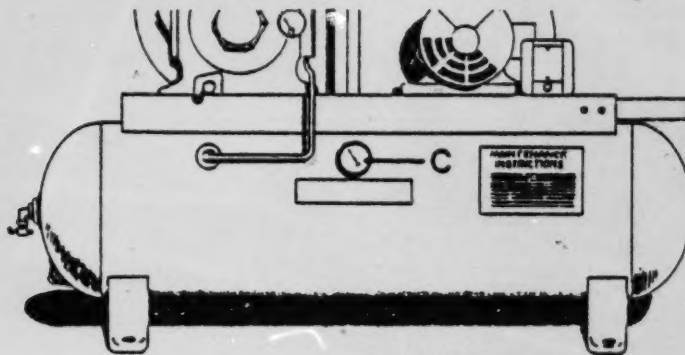
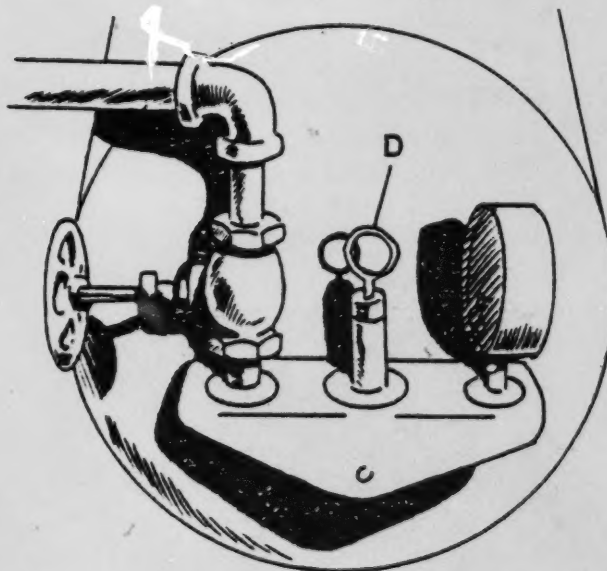


FIG. D. AIR SAFETY VALVE - ON THE AIR LINE FROM COMPRESSOR (WITH RING-TYPE LIFTER FOR TEST).



INFORMATION

FIG. E. COMPRESSOR PUMP -

FIG. F. COOLING FINS -

FIG. G. AIR FILTER -

FIG. H. OIL LEVEL GAUGE -

FIG. I. OIL DRAIN PLUG -

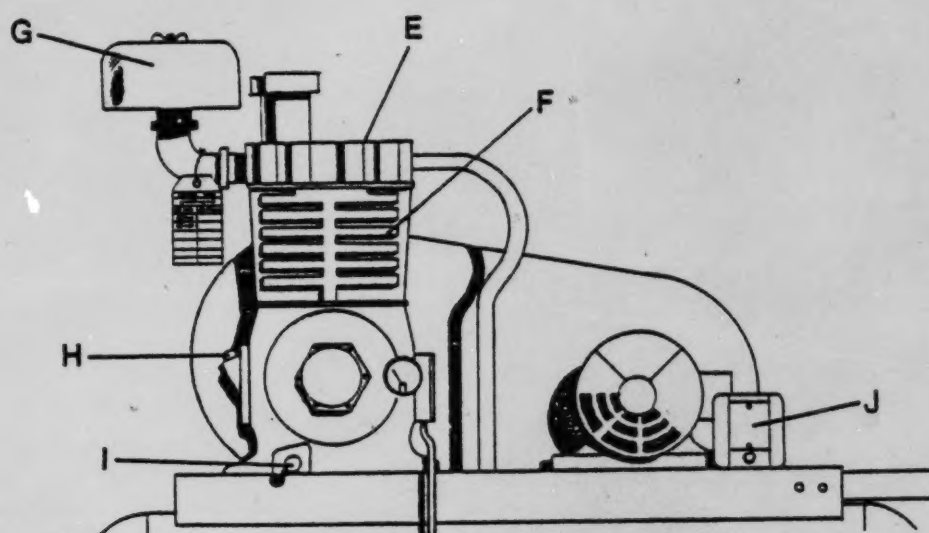


FIG. J. PRESSURE CONTROL - THERE IS ONE CONTROL; IT CONTROLS THE LOW PRESSURE AT WHICH THE COMPRESSOR STARTS AND THE HIGH PRESSURE AT WHICH THE COMPRESSOR STOPS.

INFORMATION

FIG. K. BELT GUARD - GOES AROUND THE BELT AND PULLEYS.

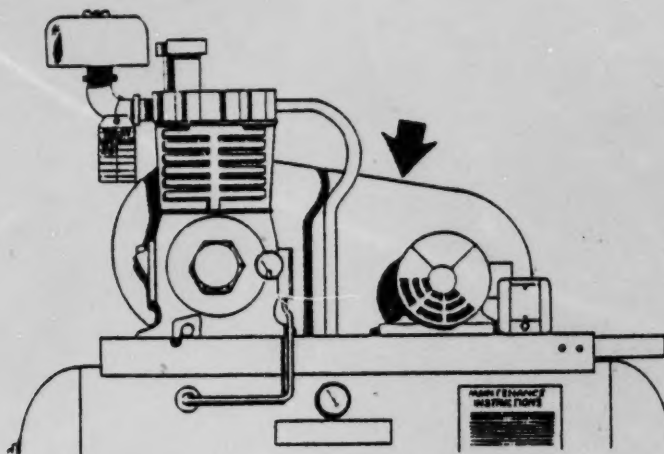
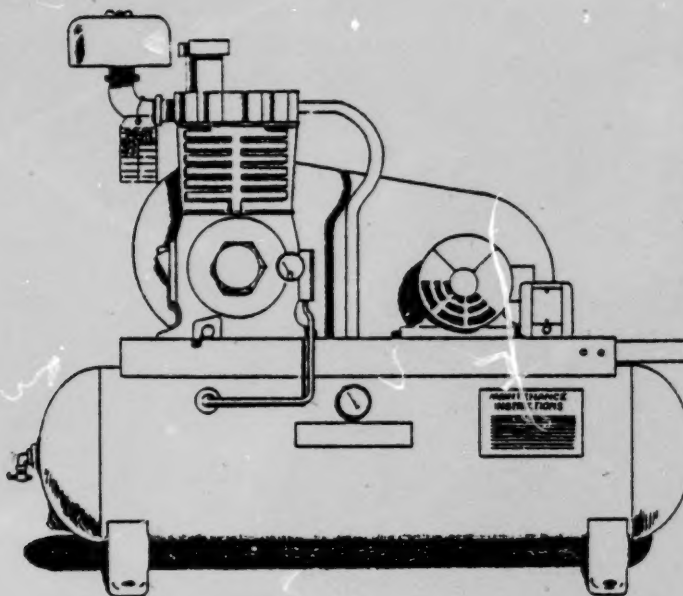


FIG. L. FILTER-REGULATOR - (ALSO SEE THE DRAIN VALVE).



INFORMATION

FIG. M.

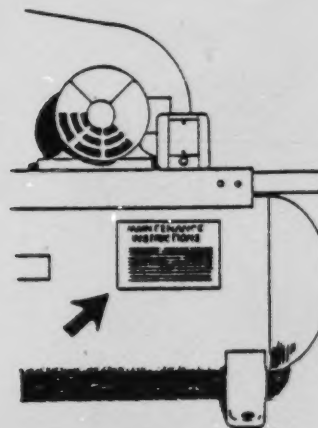


NOTE: THE PRESSURE OF AIR IN THE TANK IS MEASURED IN POUNDS
PER SQUARE INCH (P.S.I.).

WE CHECK AN AIR COMPRESSOR REGULARLY TO KEEP IT IN GOOD,
SAFE, RUNNING ORDER.

JOB STEPS

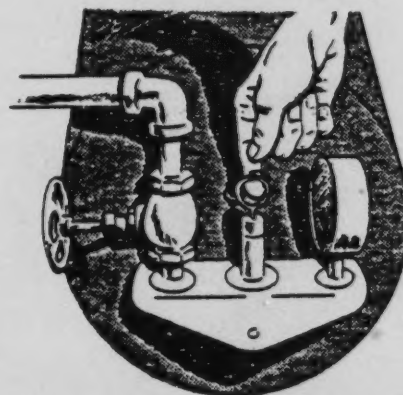
1. FIND THE WEEKLY AND 3-MONTH MAINTENANCE SCHEDULES ON THE COMPRESSOR.



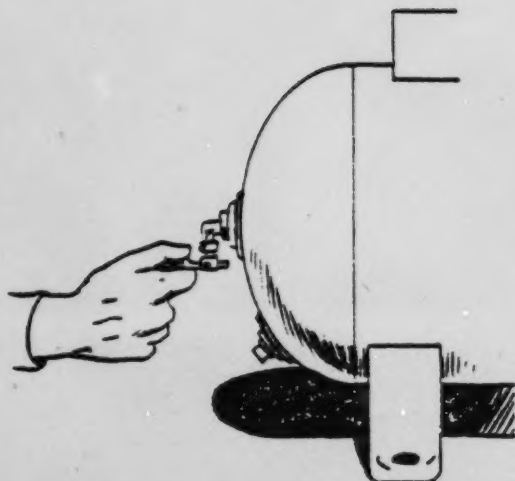
2. EVERY WEEK CHECK:

A. LISTEN FOR AIR LEAKS. IF YOU HEAR ONE, TELL YOUR INSTRUCTOR.

- B. FIND THE AIR SAFETY VALVE (SEE FIG. D.). PULL ON THE RING LIFTER. LET GO. AIR SHOULD COME OUT. IF NO AIR COMES OUT, TELL YOUR INSTRUCTOR.

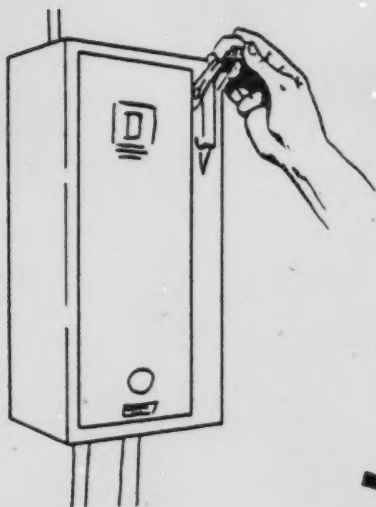


- C. FIND THE DRAIN VALVE (FIG. B). OPEN IT. THE AIR WILL BE CLOUDY AT FIRST. WHEN THE AIR IS CLEAR, CLOSE IT.



JOB STEPS

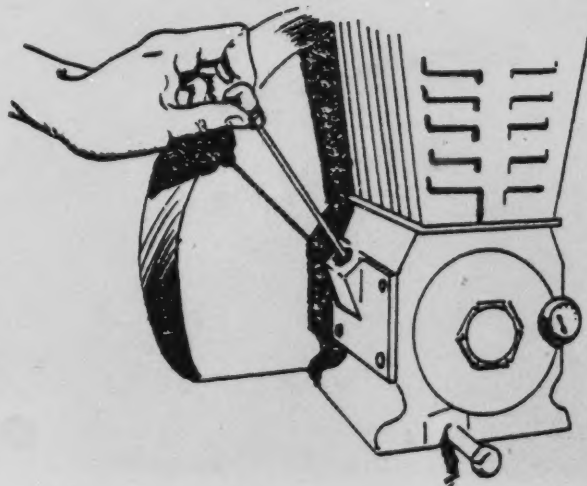
- D. FIND THE FILTER REGULATOR (FIG. L) FIND THE DRAIN VALVE AT THE BOTTOM. OPEN IT. THE AIR WILL BE CLOUDY AT FIRST. WHEN THE AIR IS CLEAR, CLOSE IT.



- E. TURN OFF THE POWER TO THE COMPRESSOR MOTOR. (ASK YOUR INSTRUCTOR TO WATCH YOU.)

- F. FIND THE OIL LEVEL GAUGE ON THE PUMP (FIG. H). IF THERE IS A DIP STICK, PUSH IT INTO THE OIL LEVEL GAUGE. IF OIL LEVEL IS BELOW THE "FULL" MARK, ADD OIL.

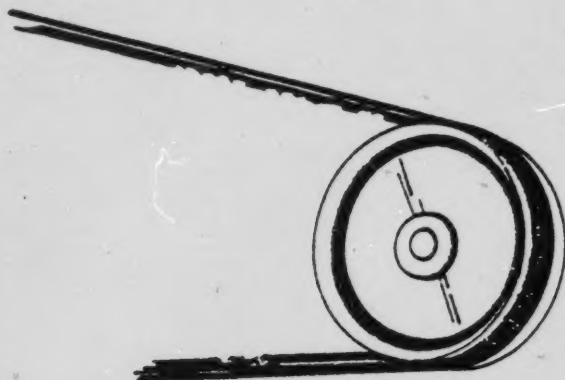
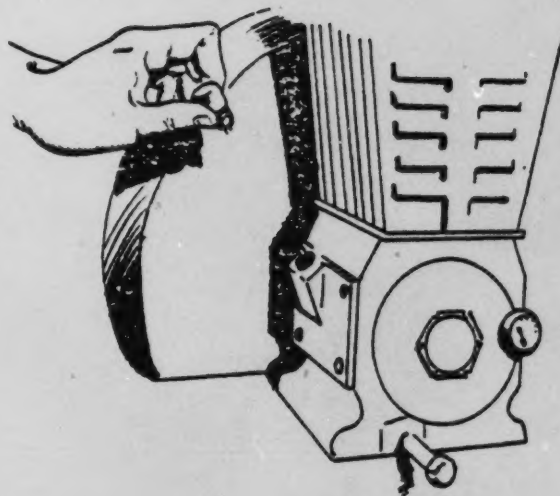
NOTE: IF THERE IS NO DIP STICK, LOOK IN THE HOLE AND SEE IF THE OIL IS UP TO THE BOTTOM OF THE SCREW-THREADS. IF THE OIL IS BELOW SCREW-THREADS, ADD OIL.



JOB STEPS

- G. MEASURE THE OIL WITH DIPSTICK.
THEN, MEASURE OIL WITHOUT
DIPSTICK.

 ** CAUTION: DO NOT OVERFILL - **
 ** DO NOT ADD TOO MUCH OIL! **



- H. LOOK FOR CRACKING OR TEARING
IN THE BELTS. IF YOU SEE A
CRACK OR TEAR, ASK YOUR
INSTRUCTOR HOW TO CHANGE THE
BELT.

- I. TURN ON THE POWER TO THE
COMPRESSOR.

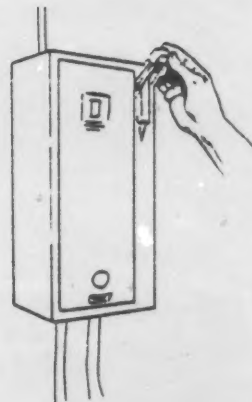


AIR COMPRESSOR			
1 week maint. check			
Date	Initials	Date	Initials
3/16/78	B.B.		

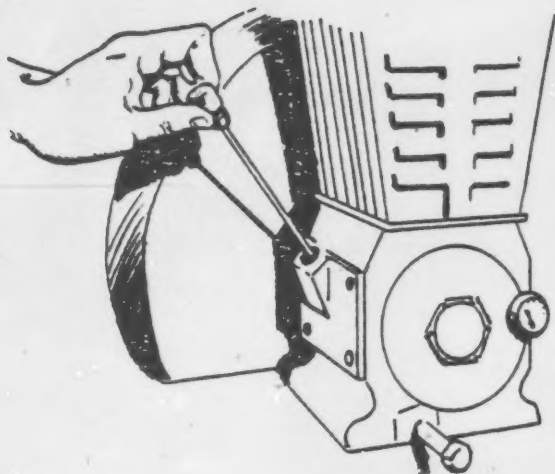
- J. WRITE THE DATE ON THE 1-WEEK
MAINTENANCE SCHEDULE CARD.
WRITE YOUR INITIALS ON THE
1-WEEK MAINTENANCE SCHEDULE
CARD.

JOB STEPS3. THREE MONTHS CHECK:

- A. TURN OFF THE POWER TO THE COMPRESSOR MOTOR. (ASK YOUR INSTRUCTOR TO WATCH YOU).



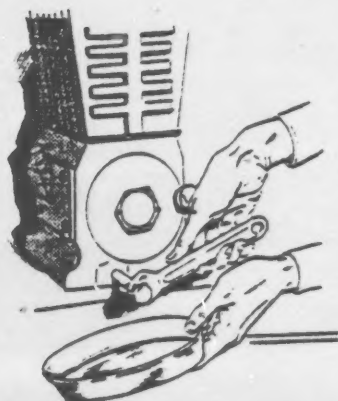
- B. CHANGE CRANKCASE OIL. FIRST, OPEN UP THE OIL SCREW PLUG WHERE OIL LEVEL IS CHECKED.



- C. PUT AN OIL PAN UNDER THE OIL DRAIN PLUG. THEN, USING A WRENCH, TAKE OUT THE OIL DRAIN PLUG.

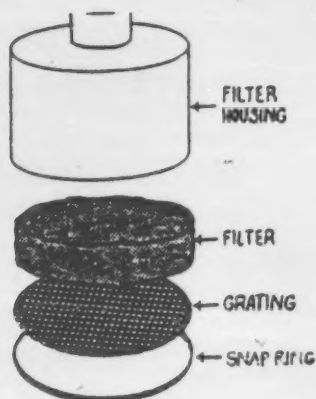


- D. LET THE OIL DRAIN OUT. THEN, PUT THE PLUG BACK IN.



JOB STEPS

E. FILL THE CRANKCASE TO "FULL" MARK WITH NEW OIL.

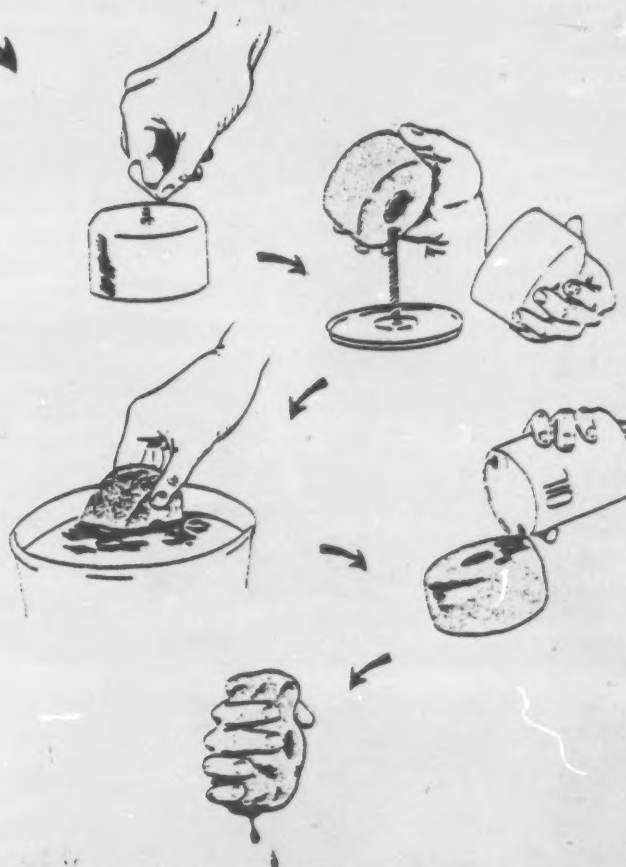


F. TAKE AIR FILTER OUT.

NOTE: THERE ARE TWO KINDS OF AIR FILTERS.

1. SOME COMPRESSORS HAVE A SNAP RING THAT HOLDS A PIECE OF FILTER MATERIAL. USE YOUR PLIERS TO RELEASE THE SNAP RING. PUT NEW FILTER IN.

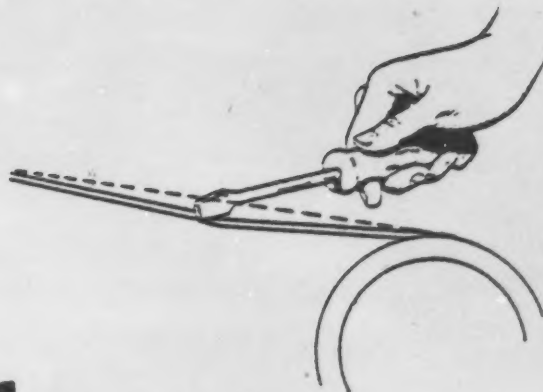
F. 2. SOME COMPRESSORS HAVE AN OIL-WETTED FILTER ELEMENT. UNSCREW THE WING NUT AND TAKE THE FILTER OUT. WASH FILTER IN SPECIAL SOLVENT. (SEE YOUR INSTRUCTOR). DIP FILTER IN OIL. DRAIN OFF EXTRA OIL. PUT FILTER BACK IN.



JOB STEPSG. CHECK BELT TENSION.

1. WITH A SCREWDRIVER, PRESS DOWN ON TOP OF BELT.

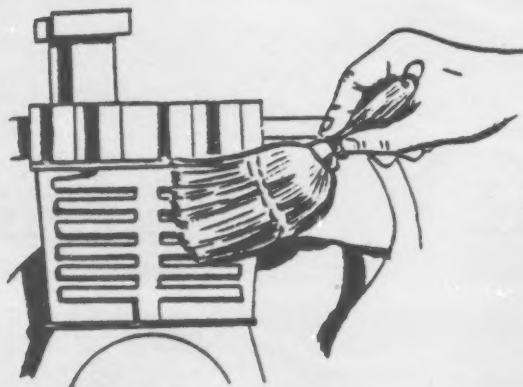
NOTE: YOU MAY HAVE TO REACH THROUGH BELT GUARD TO CHECK TENSION.



2. IF BELT IS TOO LOOSE TELL YOUR INSTRUCTOR.



- H. CLEAN OR REPLACE FILTER ELEMENT IN FILTER-REGULATOR. ASK YOUR INSTRUCTOR HOW TO DO THIS BECAUSE THERE ARE MANY DIFFERENT KINDS OF FILTER ELEMENTS.

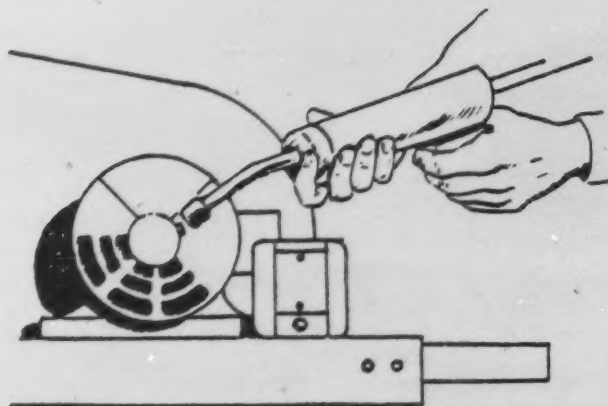


- I. USING A SMALL BRUSH, CLEAN COOLING FINS. CLEAN ANY OTHER DIRT YOU SEE ON THE COMPRESSOR.

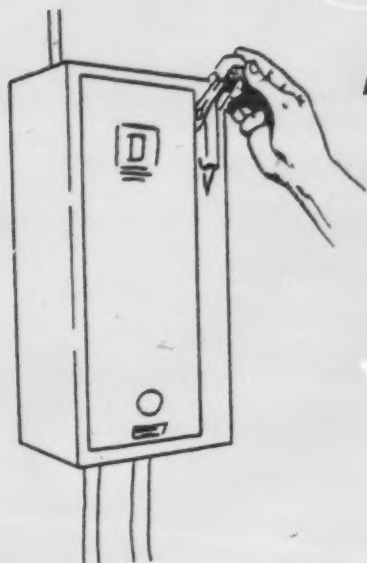
JOB STEPS

- J. USING GREASE GUN, GREASE THE MOTOR. TWO CRANKS IS ENOUGH.

NOTE: THE END OF THE GREASE GUN WILL FIT OVER THE SMALL GREASE FITTINGS ON THE MOTOR.



- K. TURN ON POWER TO COMPRESSOR MOTOR.



- L. WRITE YOUR INITIALS AND THE DATE ON THE 3-MONTHS MAINTENANCE SCHEDULE CARD.

NOTE: ASK YOUR INSTRUCTOR TO SHOW YOU HOW TO ADJUST THE PRESSURE CONTROL. THIS SHOULD BE CHECKED EVERY 6 MONTHS.

AIR COMPRESSOR			
3 month maint. check			
Date	Initials	Date	Initials
3/16/78	B.B.		



building maintenance & engineering

unit: GENERAL MAINTENANCE

capital area career center

module: 2201 02 024 3 date: 5/77 level: II

skill title: DOOR CLOSERS

developed & written by: DEBRA CONSTANTINI

visuals by: GLEN COOLEY

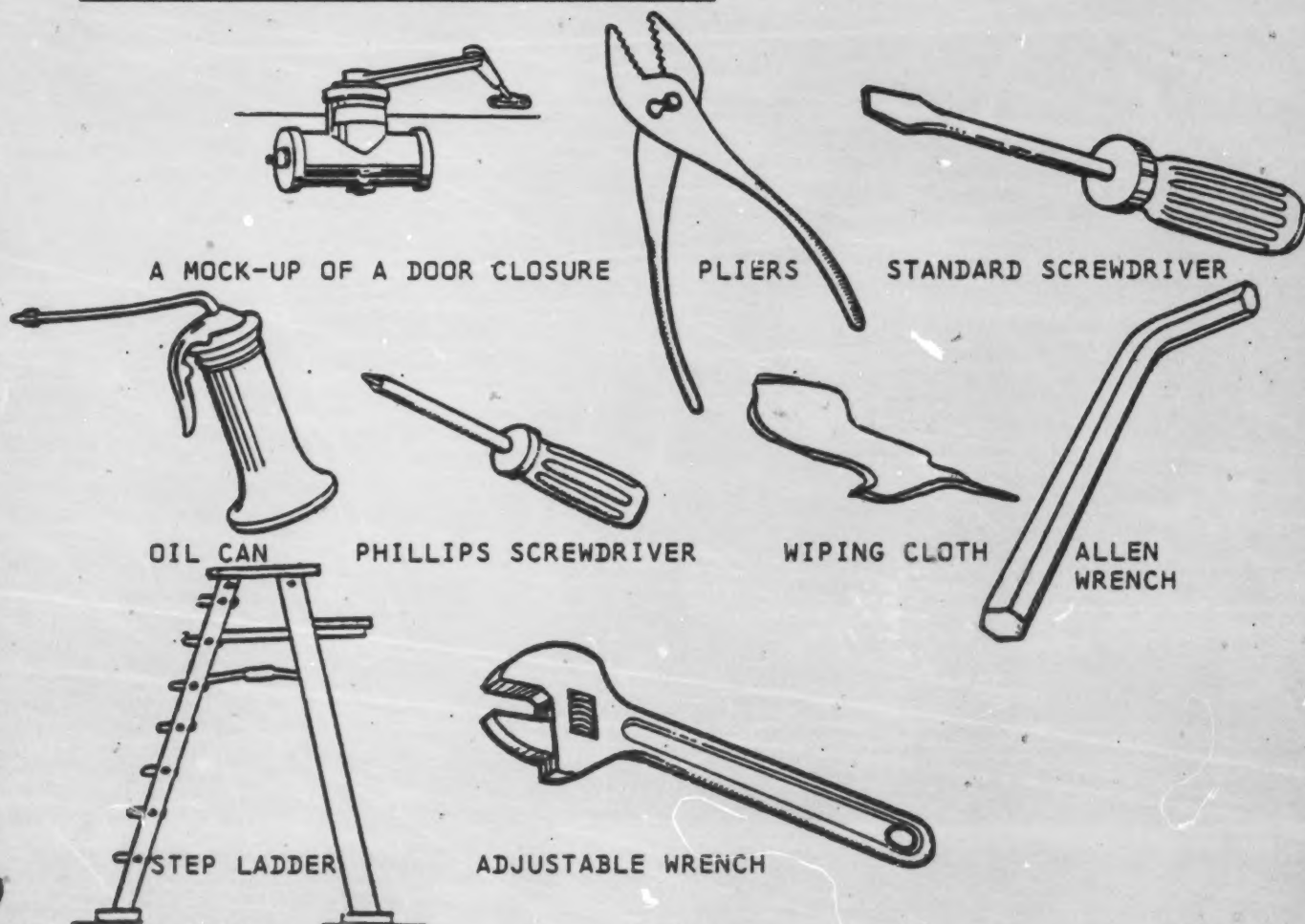
WORD GUIDE

ADJUST, ADJUSTMENT - CHANGE TO
MAKE SOMETHING WORK BETTER.

CLOSURE - SOMETHING THAT CLOSES.

PERFORMANCE OBJECTIVEYOU ARE GOING TO LEARN:

1. HOW TO MAKE AN ADJUSTMENT ON A DOOR CLOSURE.
2. HOW TO PREVENT HAVING TO MAKE REPAIRS.

AND IN ORDER TO DO THIS YOU WILL NEED:

WE WILL KNOW YOU CAN DO IT WHEN:

1. YOU ADJUST THE DOOR SO IT SHUTS SLOWLY ENOUGH TO LET A PERSON THROUGH.
2. YOU ADJUST THE DOOR SO IT DOESN'T SLAM.
3. YOU TIGHTEN ALL HOLDING SCREWS.
4. YOU OIL ALL HINGES.

INFORMATION

REGULAR MAINTENANCE FOR DOOR CLOSERS IS EVERY 6 MONTHS.
ASK YOUR INSTRUCTOR IF YOU SHOULD READ MORE ABOUT DOOR CLOSERS.

REMEMBER, CHECK DOOR CLOSERS EVERY 6 MONTHS.

READ, SACKS, CHAPTER 38, P. 465.

JOB STEPSWORD GUIDE

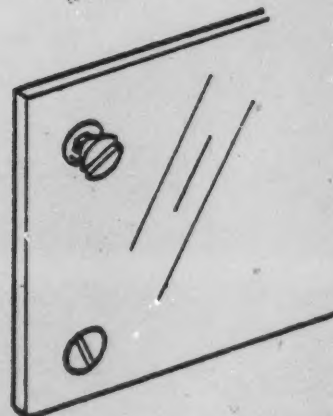
CYLINDER - CASE FILLED WITH OIL
AND A PISTON THAT MOVES BACK
AND FORTH.

1. GET ALL THE EQUIPMENT YOU WILL
NEED AND TAKE IT TO YOUR WORK
AREA.



2. PUT MOCK-UP DOOR CLOSER ON WORK
TABLE AND CHECK ALL SCREWS, BOLTS,
NUTS TO SEE IF THEY ARE TIGHT.

3. IF SCREWS ARE LOOSE, USE THE
RIGHT SCREWDRIVER TO TIGHTEN
THEM.



WORD GUIDE

LATCH SPEED - SPEED DOOR MOVES THE LAST 6 INCHES OF BEING CLOSED.

SWEEP SPEED - SPEED THE DOOR MOVES FROM WIDE-OPEN TO FROM WITHIN 6 INCHES OF BEING CLOSED.

NOTE: SOME DOORS HAVE DIFFERENT KINDS OF SCREWS.

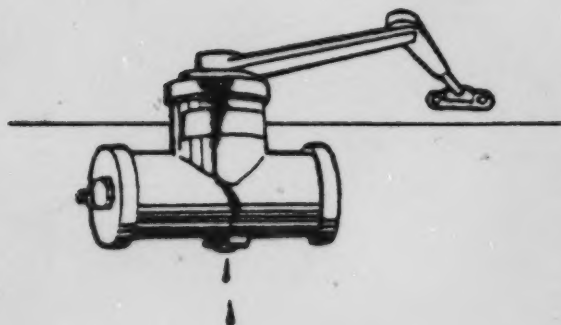
1. REGULAR SCREW



2. PHILLIPS SCREW



3. ALLEN SCREW



4. LOOK FOR OIL LEAKS ON CYLINDER.

5. OPEN AND CLOSE DOOR 2 OR 3 TIMES. CHECK SWEEP AND LATCH SPEEDS. IF DOOR OPENS TOO FAST, SET BY ADJUSTMENT SCREWS ON END OF CYLINDER.

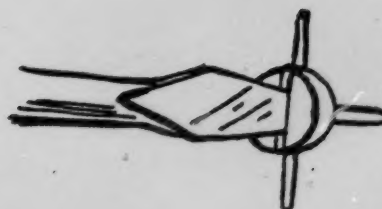
NOTE: FOR SOME DOORS, THIS SCREW IS ON FRONT OF UNIT. ON OTHER DOORS THIS SCREW IS IN BACK, AT BOTTOM OF UNIT.



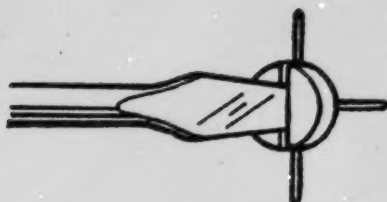
JOB STEPS

6. TO CLOSE DOOR MORE SLOWLY, TURN SCREW IN. TO CLOSE DOOR FASTER, TURN SCREW OUT.

NOTE: USUALLY, THERE ARE 4 MARKS AROUND THE SCREW. SETTINGS FROM MARK TO MARK CONTROL SWEEP SPEED.



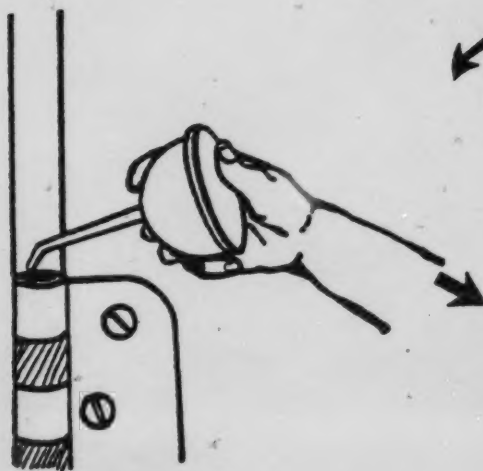
7. SET BETWEEN MARK TO THE SPEED YOU WANT.



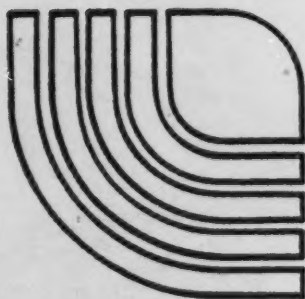
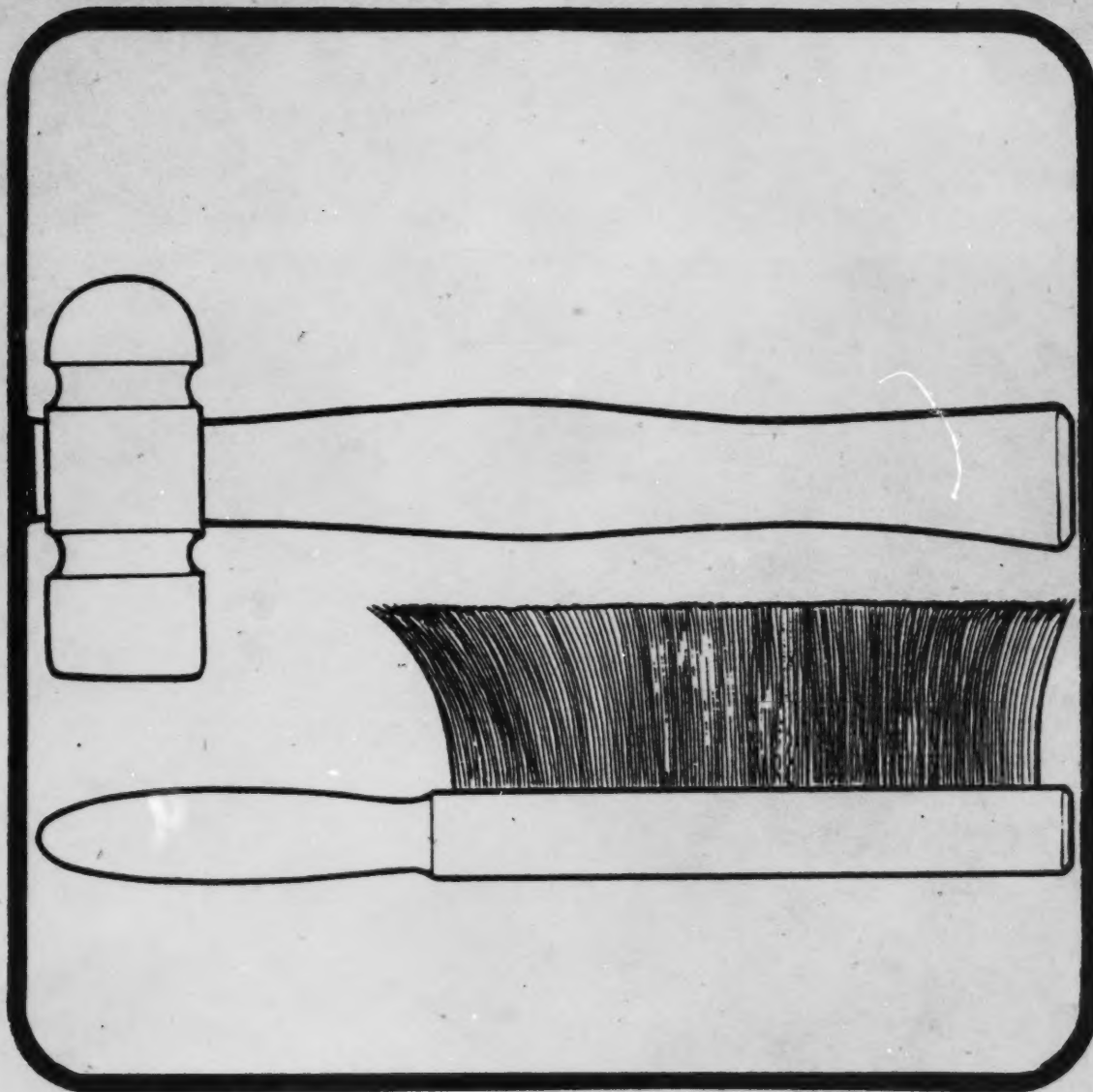
8. CHECK THE DOOR. IF IT IS SET CORRECTLY, GO ON TO NEXT STEP. IF NOT, SET IT AS YOU DID IN JOB STEP 6.



9. USING OIL CAN, OIL THE HINGES. USE WIPING CLOTH TO WIPE UP ANY DRIPS.



10. RETURN ALL EQUIPMENT TO EQUIPMENT ROOM.



building maintenance & engineering

unit: GENERAL MAINTENANCE

capital area career center

module: 2201 02 025 3 date: AUGUST 1977 level:

skill title: OPERATION OF THE PROPANE TORCH

developed & written by: ALAN STEINBERG

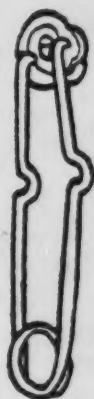
visuals by: SHERRI BAKER

PERFORMANCE OBJECTIVEYOU ARE GOING TO LEARN:

HOW TO OPERATE A PROPANE TORCH.

AND IN ORDER TO DO THIS YOU WILL NEED:

A PROPANE TORCH



A SPARK LIGHTER



A FIRE EXTINGUISHER

WE WILL KNOW YOU CAN DO IT WHEN:

YOU CAN PUT TOGETHER A TORCH (BURNER AND PROPANE TANK) AND LIGHT IT, SO IT KEEPS A STEADY BLUE FLAME ABOUT 1-1 1/2 INCHES LONG.

WORD GUIDE

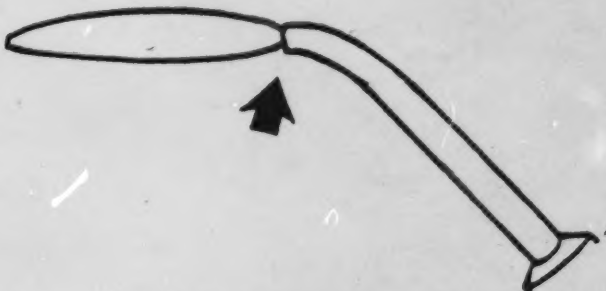
SOLDER - METAL WHICH CAN BE MELTED, SO IT WILL BIND TOGETHER OTHER METAL OBJECTS.

INFORMATIONSAFETY NOTES:

- 1) DO NOT AIM THE FLAME TOWARD ANYTHING THAT MIGHT CATCH ON FIRE. IF ANYTHING CATCHES FIRE, USE FIRE EXTINGUISHER.



- 2) DO NOT ALLOW SOLDER (OR OTHER MATERIALS) TO DROP ONTO END OF BURNER TIP.

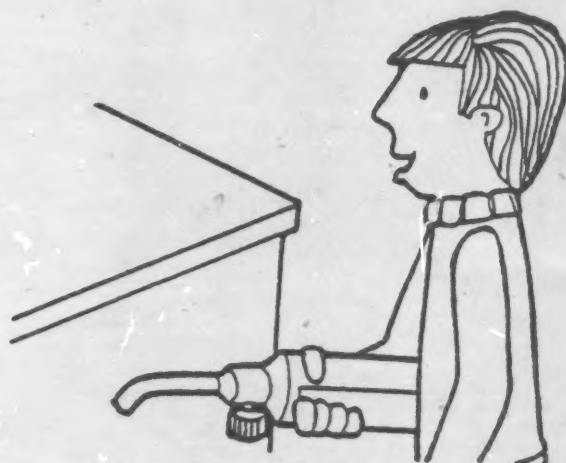


- 3) WHEN YOU FINISH USING THE TORCH, LET IT SIT UPRIGHT UNTIL IT COOLS.

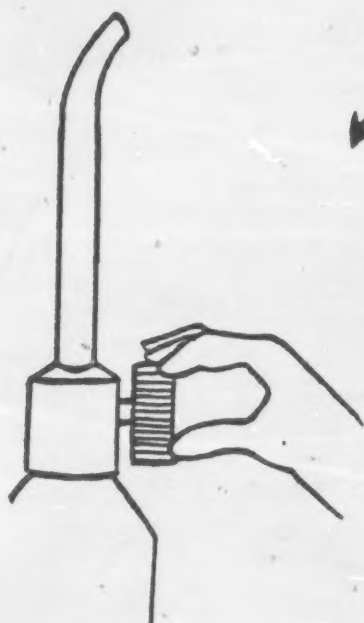


WORD GUIDECLOCKWISE - TO THE RIGHT.GAS VALVE - CONTROLS AMOUNT OF GAS COMING OUT OF TORCH.JOB STEPS

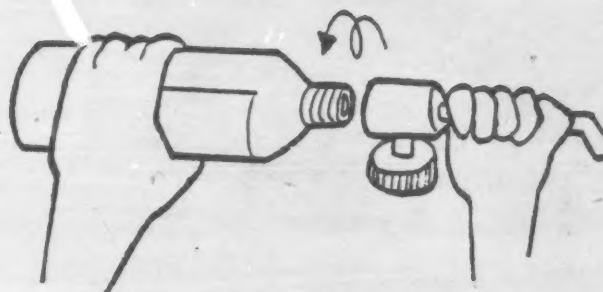
1. TAKE ALL MATERIALS AND EQUIPMENT TO YOUR WORK AREA.



2. TURN OFF THE GAS VALVE.

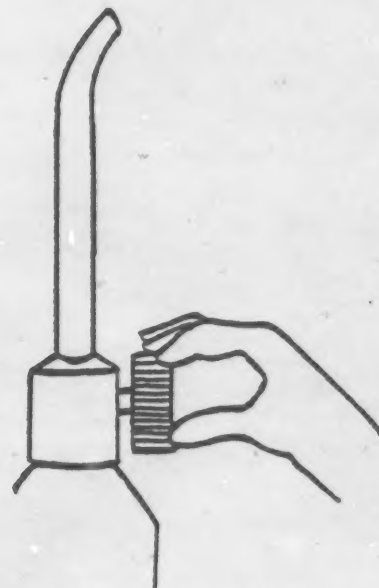
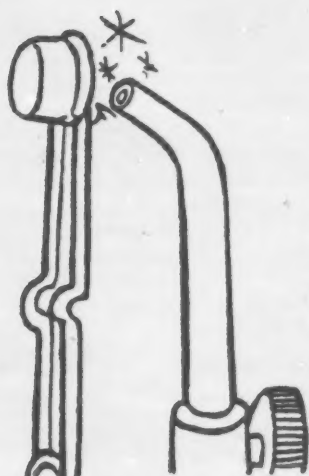


3. FIND THE THREADED END OF THE PROPANE TORCH AND ATTACH IT TO THE FLAME BURNER BY SCREWING IT CLOCKWISE INTO THE THREADED END.



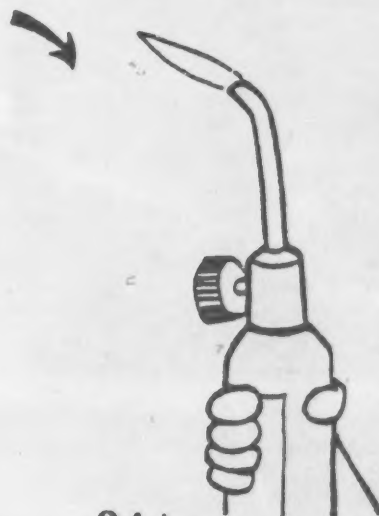
JOB STEPS

4. HOLD TORCH UPRIGHT AND OPEN THE GAS VALVE BY MOVING IT 1/2 TURN.



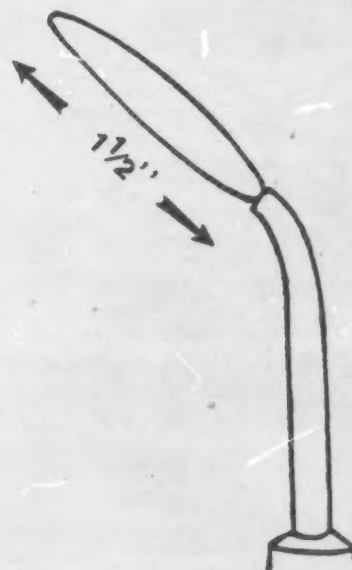
5. SNAP THE SPARK LIGHTER IN FRONT OF AND CLOSE TO THE BURNER OPENING. GAS WILL LIGHT AND BURN WITH A BLUE FLAME.

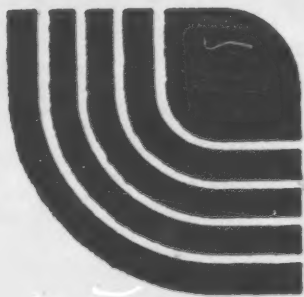
6. IF YOU MUST USE THE TORCH UPSIDE-DOWN, LET IT WARM UP FOR 2 MINUTES, FIRST.



JOB STEPS

7. ADJUST THE FLAME SO IT IS ABOUT 1-1 1/2 INCHES LONG. TORCH IS NOW READY TO USE.





building maintenance & engineering

unit: BUILDING MAINTENANCE (PLUMBING)

capital area career center

module: 2201 02 026 3 date: 5/77 level: 1

skill title: FAMILIARIZATION WITH POWER THREADING MACHINE

developed & written by: DWIGHT SMITH

visuals by: DAVE WEHRWEIN

WORD GUIDE

REAMER - A CONE SHAPED TOOL USED TO SMOOTH OUT THE INSIDE EDGE OF PIPES.

DIE-HEAD THREADER - A TOOL THAT CUTS THREADS INTO A PIPE END.

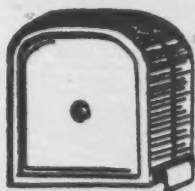
PERFORMANCE OBJECTIVEYOU ARE GOING TO LEARN:

HOW TO IDENTIFY AND USE EACH TOOL ON A POWER DRIVEN PIPE MACHINE:

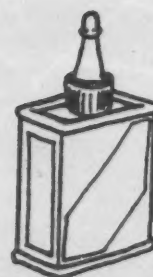
1. CUTTER
2. REAMER
3. DIE-HEAD THREADER

AND IN ORDER TO DO THIS YOU WILL NEED:

A PIECE OF PIPE



STEEL MEASURING TAPE



CUTTING OIL



PENCIL



GLOVES

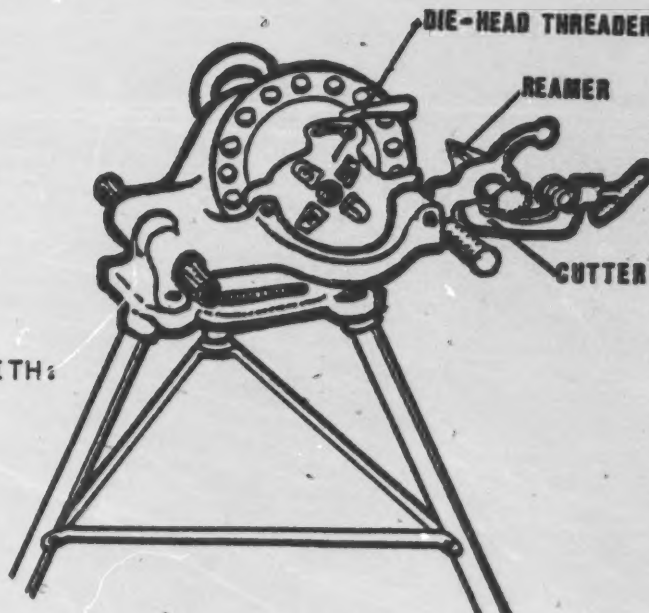


SAFETY GLASSES OR GOGGLES

PERFORMANCE OBJECTIVE (CON'T)

POWER DRIVEN PIPE MACHINE WITH:

- A. CUTTER
- B. REAMER
- C. DIE-HEAD THREADER



WE WILL KNOW YOU CAN DO IT WHEN:

1. YOU HAVE WATCHED THE SLIDE-TAPE ON THE POWER DRIVEN PIPE MACHINE.
2. YOU CUT A PIECE OF PIPE THE RIGHT LENGTH.
3. YOU HAVE REAMED THE CUT END OF THE PIPE SO THERE ARE NO BURRS OR RIDGES.
4. YOU THREAD THE CUT END OF THE PIPE $\frac{3}{4}$ INCH SO THAT A FITTING CAN THEN BE PUT ON EASILY.

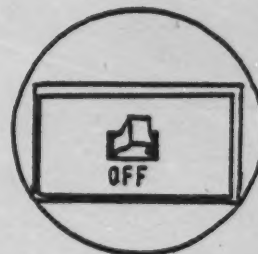
JOB STEPSWORD GUIDE

CUTTING OIL - OIL THAT IS USED
TO COOL AND LUBRICATE CUTTING
AND THREADING OF METAL.

PART ONE: KNOW THE MACHINE

1. ASK YOUR INSTRUCTOR TO GO OVER
THE SAFETY OPERATION INSTRUCTIONS
WITH YOU:

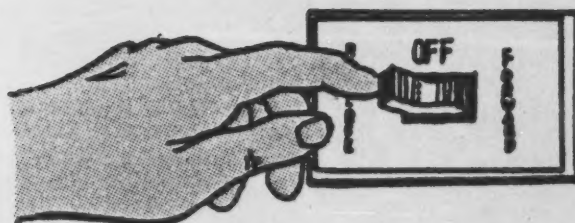
- A. DO NOT WEAR LOOSE CLOTHING.
- B. DO WEAR SAFETY GLASSES.
- C. TURN OFF THE POWER BEFORE
TOUCHING THE EQUIPMENT.
- D. WAIT UNTIL THE MACHINE HAS
STOPPED BEFORE TOUCHING IT.
- E. WEAR GLOVES.
- F. USE CUTTING OIL WHEN YOU
CUT OR THREAD A PIPE.
- G. FIND THE POWER SWITCH AND
BE ABLE TO TURN IT OFF.



2. GET THE EQUIPMENT AND SUPPLIES
AND GO TO THE POWER PIPE MACHINE.

JOB STEPS

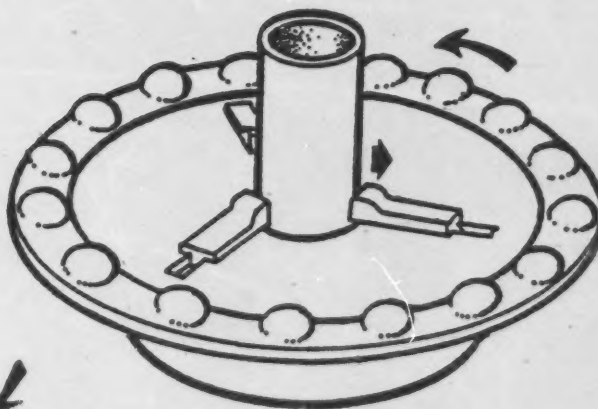
3. CHECK OUT THE FORWARD AND REVERSE SWITCH. WAIT UNTIL THE MACHINE STOPS BEFORE CHANGING DIRECTIONS.



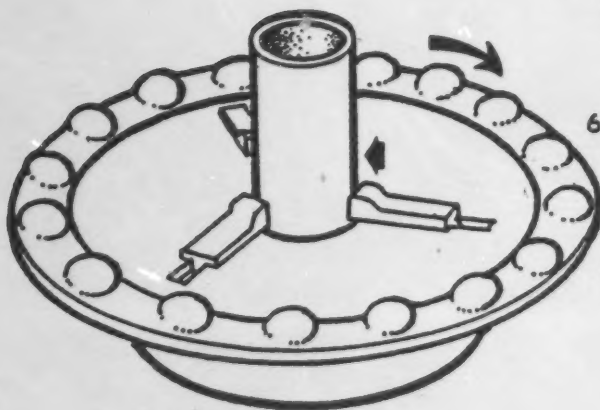
4. FIND THE FRONT AND REAR CHUCKS.



5. TURN THE FRONT CHUCK COUNTER-CLOCKWISE. THE CHUCK OPENING WILL GET SMALLER.

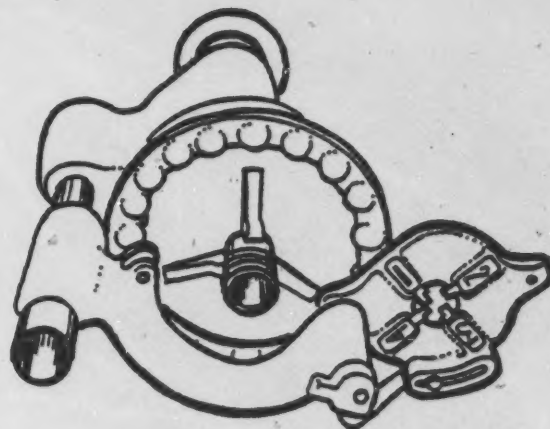


6. TURN THE FRONT CHUCK CLOCKWISE. IT WILL OPEN UP TO LET GO OF THE PIPE.



JOB STEPSPART TWO: CUTTING PIPE

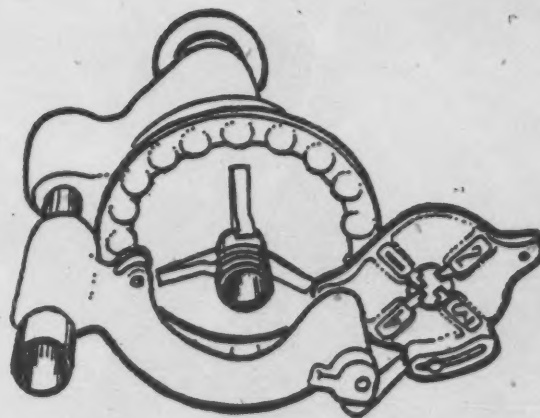
1. OPEN UP BOTH CHUCKS SO THAT THE PIPE WILL FIT IN.



2. MOVE CUTTER, REAMER, AND DIE-HEAD THREADER OUT OF THE WAY.

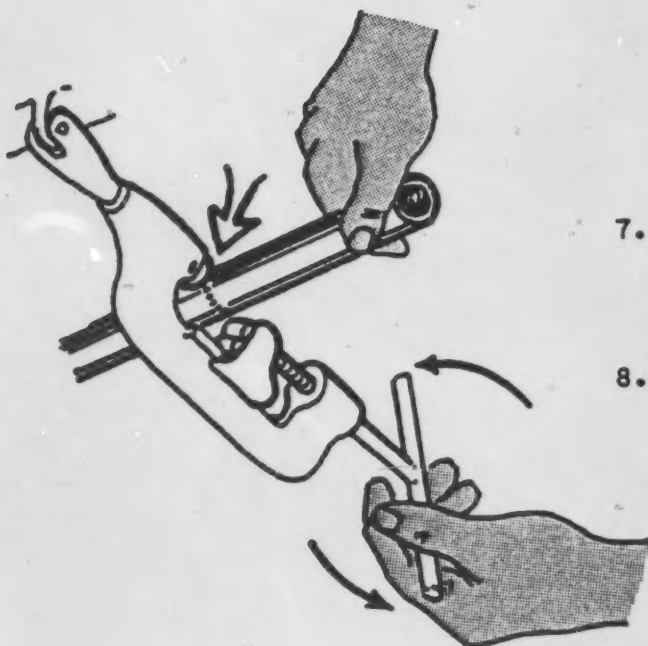
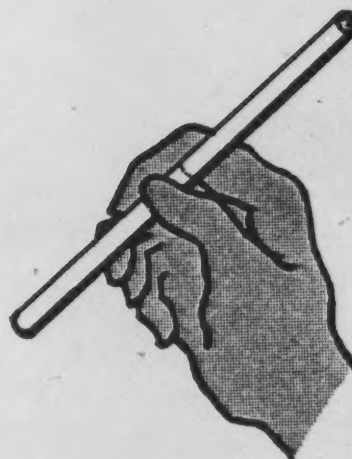
3. IF THE PIPE IS OVER 3 FEET LONG, PUT IT IN THE REAR CHUCK AND THEN THROUGH THE FRONT.

4. IF THE PIPE IS LESS THAN 3 FEET LONG, PUT IT IN THE FRONT CHUCK FIRST.



JOB STEPS

5. USE THE STEEL MEASURING TAPE TO MEASURE 6 INCHES FROM THE FRONT END OF THE PIPE.
6. USE A PENCIL TO MARK THE SPOT.



7. TURN THE PIPE SO THAT THE PENCIL MARK IS FACING UP.
8. TIGHTEN BOTH CHUCKS TO HOLD THE PIPE.

JOB STEPS

9. SLOWLY, FLIP THE CUTTER OVER ONTO THE PIPE.



10. TURN THE CUTTER HANDLE COUNTER-CLOCKWISE UNTIL THE CUTTER GOES OVER THE PIPE.

11. MOVE THE CUTTER SO THAT IT IS RIGHT ON THE PENCIL MARK YOU MADE.

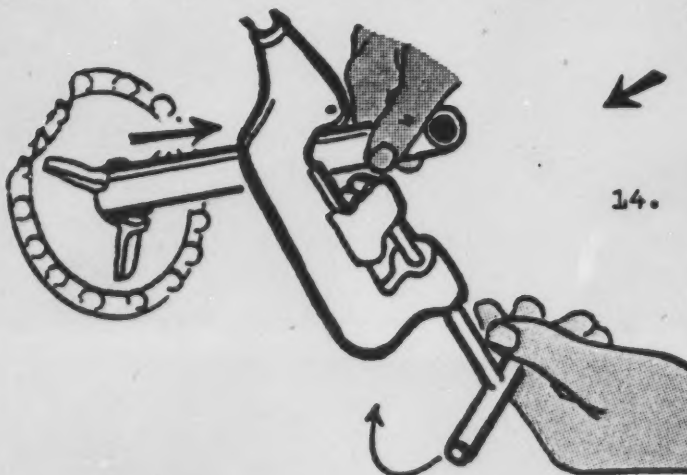
12. TIGHTEN THE CUTTER HANDLE UNTIL THE WHEEL OF THE CUTTER JUST TOUCHES THE PIPE.



13. TURN ON THE MACHINE TO FORWARD.

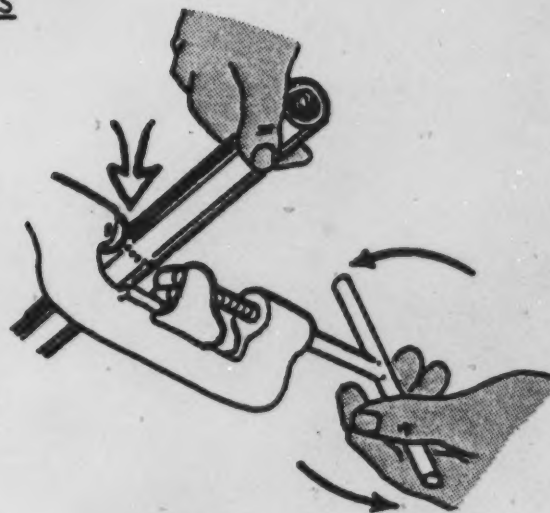


14. AS THE PIPE TURNS, VERY SLOWLY TIGHTEN THE HANDLE ON THE CUTTER 1/4 TURN EACH TIME.

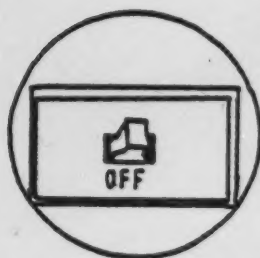


JOB STEPS

15. CONTINUE TO SLOWLY TURN THE CUTTER HANDLE UNTIL THE PIPE IS CUT OFF.



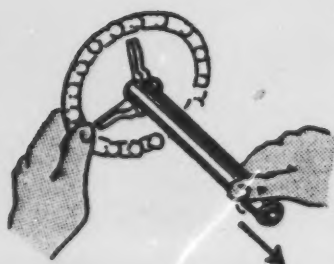
16. TURN OFF THE MACHINE.



17. FLIP THE CUTTER OUT OF THE WAY.



18. LOOSEN THE CHUCKS. THEN, TAKE THE PIPE OUT OF THE MACHINE.

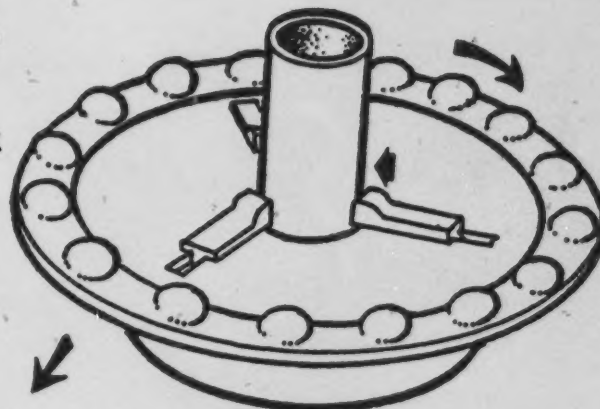


WORD GUIDEJOB STEPS

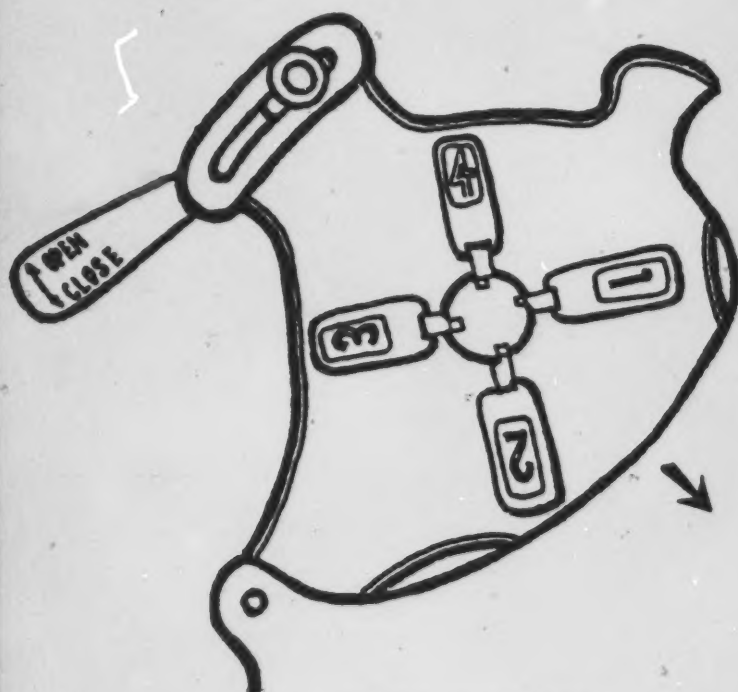
DIES - THE CUTTING TEETH THAT CUT THE PIPE.

PART THREE: THREADING

1. TAKE THE PIECE OF PIPE YOU JUST CUT AND PUT IT INTO THE CHUCK. THE END YOU JUST CUT SHOULD STICK OUT OF THE FRONT CHUCK. SEE PICTURE!



2. FIND A DIE-HEAD THREADER THE SAME SIZE AS THE PIPE.



3. CLOSE THE DIES.

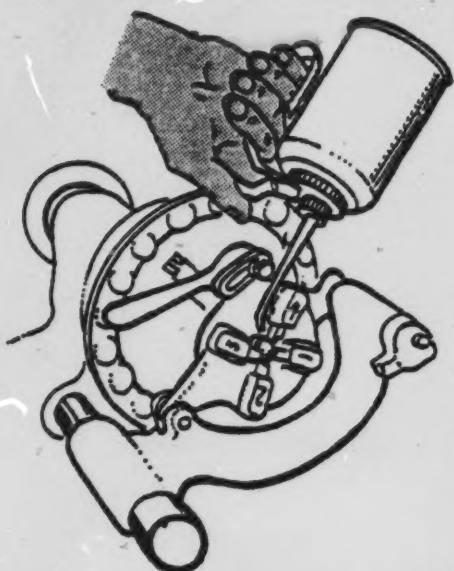


4. TURN ON THE MACHINE TO FORWARD.



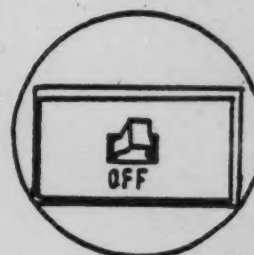
JOB STEPS

5. MOVE THE DIE-HEAD THREADER TOWARDS THE PIPE.
6. PUSH ON THE DIE-HEAD THREADER UNTIL THE TURNING PIPE GRABS IT.



7. SQUIRT SOME CUTTING OIL ONTO THE CUTTING EDGES.

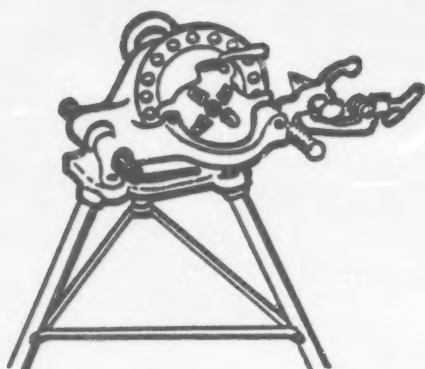
8. WHEN THE PIPE COMES THROUGH THE DIE, TURN OFF THE MACHINE. THE PIPE WILL HAVE ABOUT 3/4 INCH OF THREAD.



9. PUT THE MACHINE IN REVERSE FOR ONE TURN OF THE PIPE. FIRST, BE SURE MACHINE HAS STOPPED TURNING.

JOB STEPS

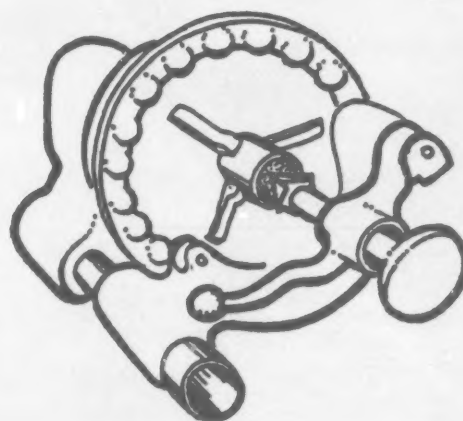
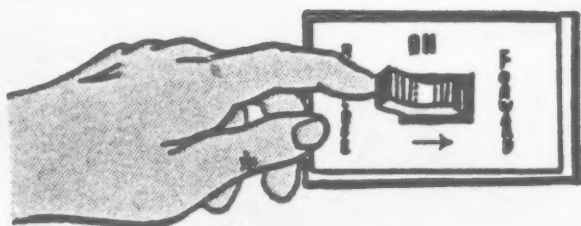
10. OPEN THE DIE-HEAD AND SLIDE IT OFF THE PIPE.



11. LOOK AT YOUR WORK. CHECK THE THREADS. THEY SHOULD BE SHARP AND ABOUT $3/4$ INCH LONG (WITHIN $1/8$ INCH). LEAVE THE PIPE IN THE MACHINE FOR PART FOUR.

PART FOUR: REAMING PIPE

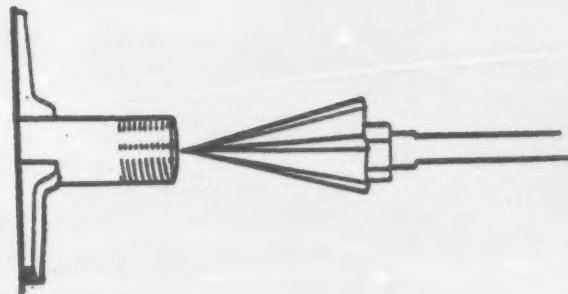
1. MOVE UP THE REAMER TO THE PIPE END.



2. TURN ON THE MACHINE TO FORWARD.

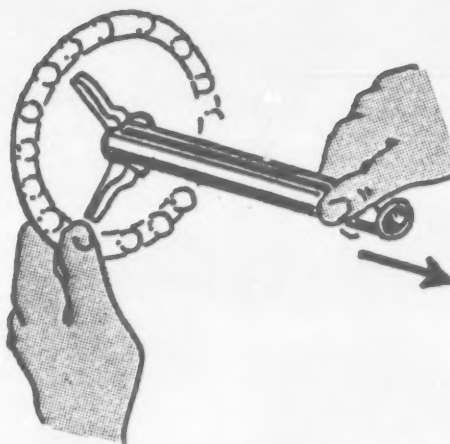
JOB STEPS

3. USE BOTH HANDS TO PUT THE REAMER INTO THE END OF THE PIPE.
4. GENTLY, PUSH ON THE REAMER TO REMOVE ALL BURRS. THIS WILL ALSO PUT A SLIGHT TAPER INSIDE THE PIPE.



5. TURN OFF THE MACHINE.

6. LOOSEN THE CHUCKS AND TAKE OUT THE PIPE.



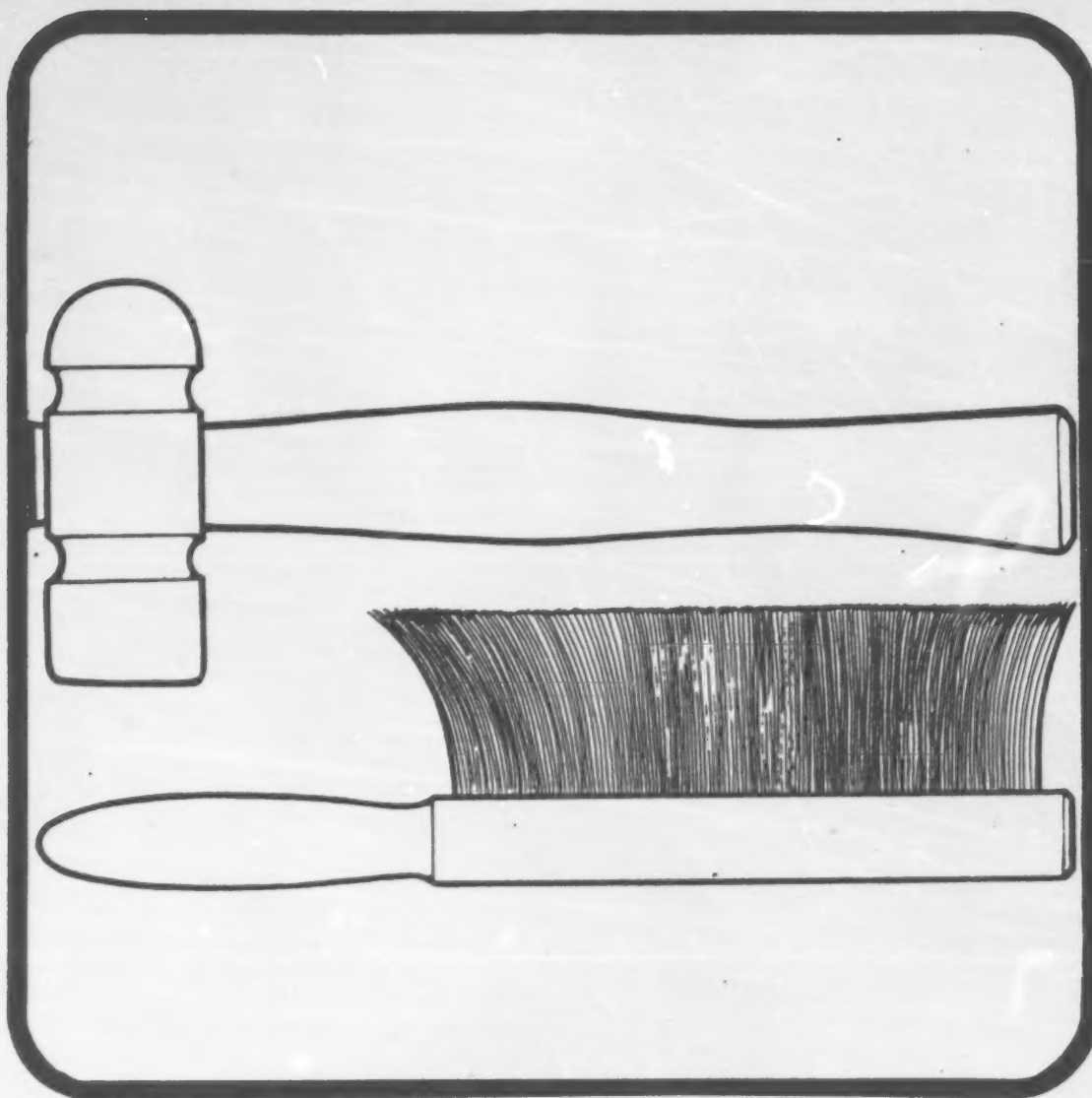
7. TO CHECK YOUR WORK, GET A FITTING AND SCREW IT ONTO THE END YOU THREADED.

JOB STEPS8. TO CLEAN UP:

- A. UNPLUG ELECTRICAL CORD.
- B. BRUSH OFF METAL SLIVERS FROM THE DIES.
- C. CLEAN THE REST OF THE MACHINE.
- D. CLEAN UP YOUR WORK AREA.
- E. PUT ALL EQUIPMENT AND SUPPLIES INTO THEIR RIGHT PLACES.



9. NOW, YOU CAN CUT, THREAD AND REAM A PIPE.



building maintenance & engineering

unit: GENERAL MAINTENANCE - PLUMBING

capital area career center

module: 2201 02 027 3 date: SEPTEMBER 1977 level: I

skill title: USE OF POWER-DRIVEN PIPE MACHINE

developed & written by: ALAN STEINBERG

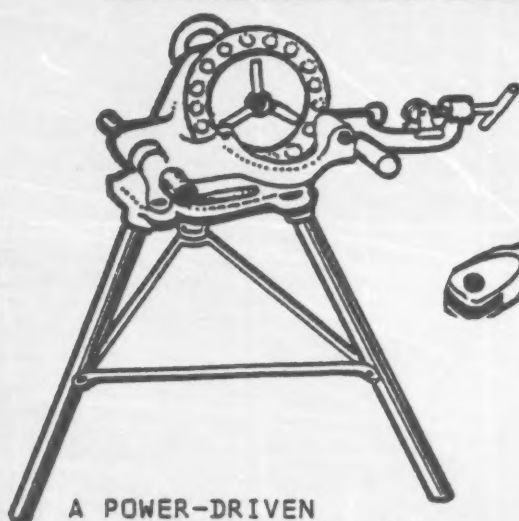
visuals by: DAVE WEHRWEIN

PERFORMANCE OBJECTIVE

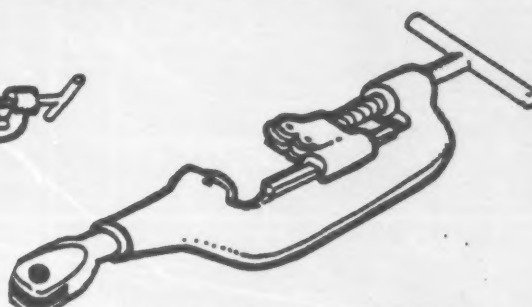
YOU ARE GOING TO LEARN:

HOW TO CUT PIPE USING A POWER-DRIVEN PIPE-CUTTING MACHINE.

AND IN ORDER TO DO THIS YOU WILL NEED:



A POWER-DRIVEN
PIPE-CUTTING MACHINE



A CUTTER ATTACHMENT



GLOVES



A PIECE OF PIPE (AT LEAST 3 FEET LONG)



CUTTING OIL

WE WILL KNOW YOU CAN DO IT WHEN:

YOU HAVE CUT THREE (3) PIECES OF PIPE INTO 4-INCH, 6-INCH AND 8-INCH LENGTHS AND EACH OF YOUR CUTS ARE STRAIGHT ACROSS.

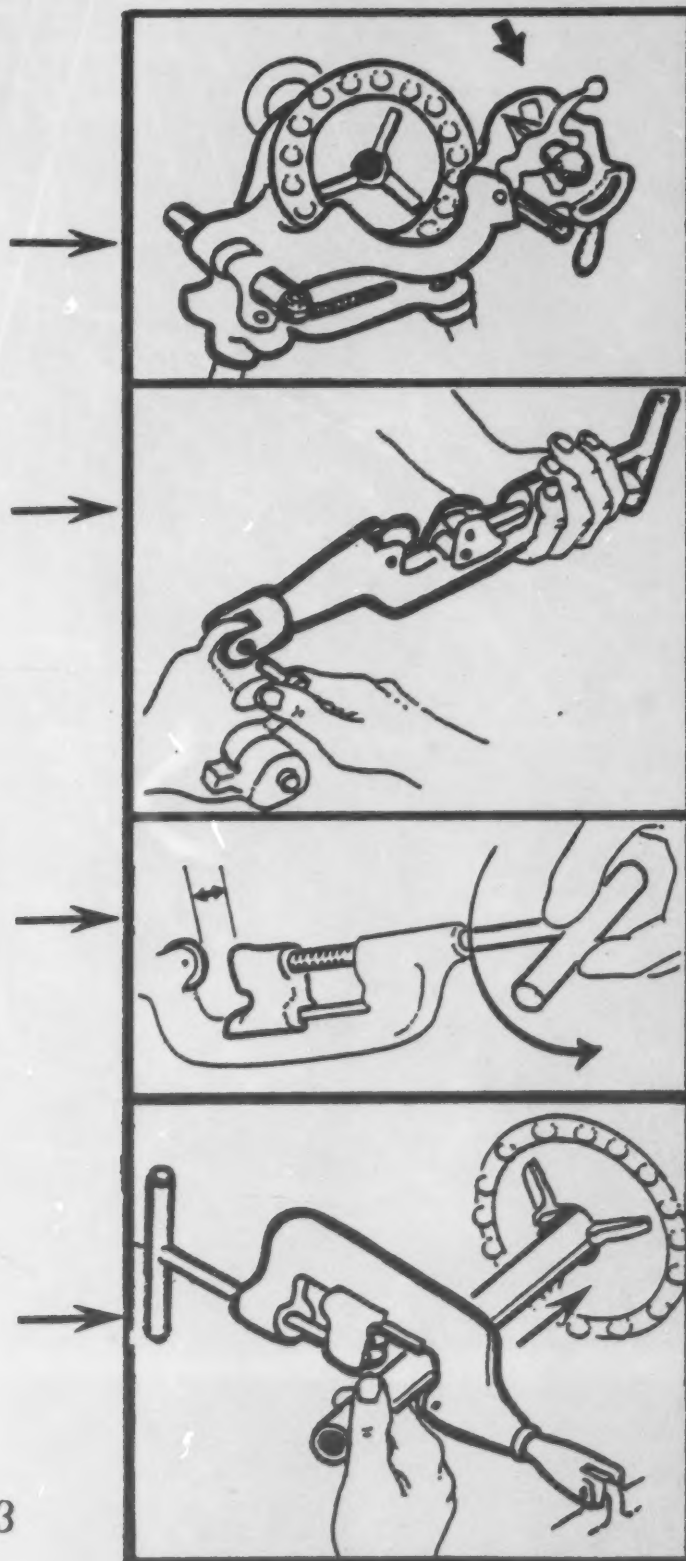
INFORMATION

BEFORE DOING THE JOB STEPS IN THIS MODULE, WATCH THE SLIDE TAPE ON THE POWER DRIVEN PIPE MACHINE.



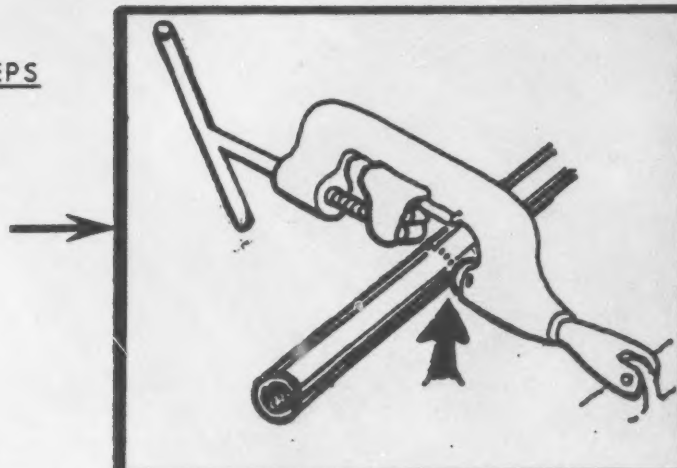
JOB STEPS

1. TAKE ALL EQUIPMENT AND MATERIALS TO YOUR WORK AREA.
2. PLACE TAPERING TOOL AND THREADING TOOL IN THE OUT-OF-THE-WAY POSITION (OR REMOVE THEM FROM MACHINE).
3. PUT PIN-HINGE OF PIPE CUTTER INTO ANCHOR POINT ON MACHINE.
4. OPEN THREADED SCREW WIDE ENOUGH TO LET PIPE SLIDE BETWEEN CUTTER WHEEL AND ROLLER.
5. PUT PIPE IN SIDE OF CHUCK AND TIGHTEN CHUCK.

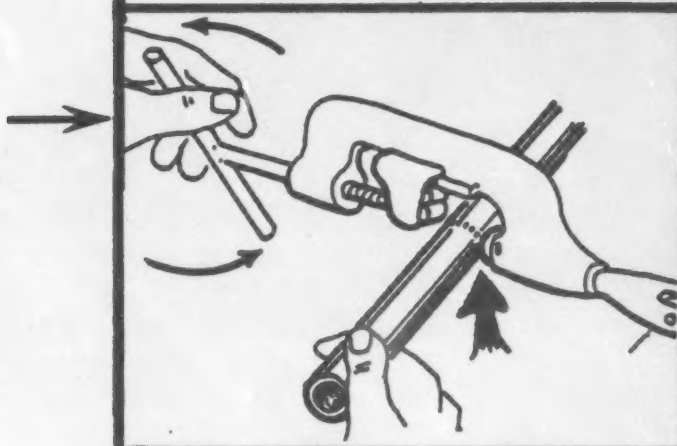


JOB STEPS

6. MEASURE FOR CORRECT LENGTH OF CUT AND MARK IT.

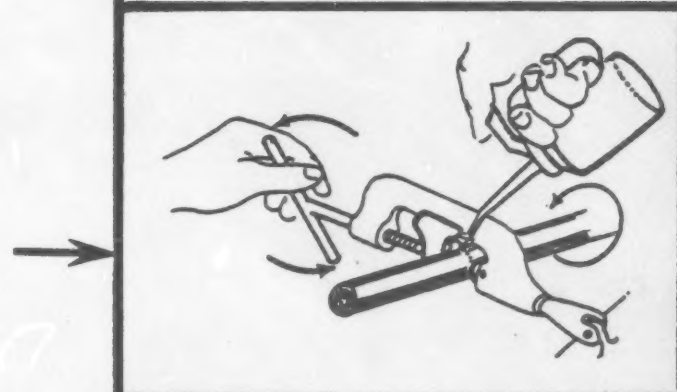


7. LINE UP CUTTING WHEEL WITH THIS MARK AND TIGHTEN THREADED SCREW UNTIL IT TOUCHES PIPE.

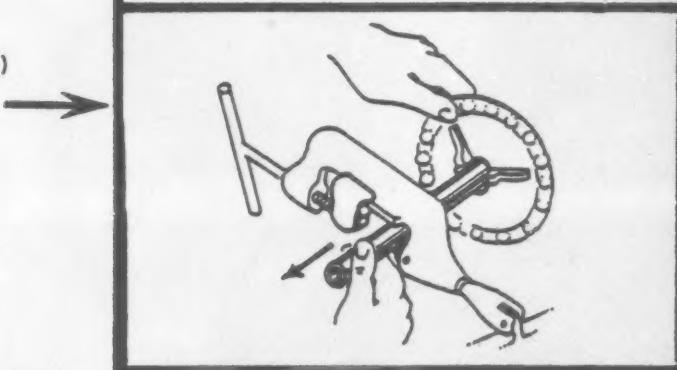


CAUTION: DO NOT FORCE
SCREW. YOU COULD BREAK
THE CUTTER WHEEL.

8. PUSH SWITCH TO FORWARD. USE CUTTING OIL TO HELP SLOWLY TURN THREADED SCREW IN, UNTIL PIPE CUTS OFF.



9. SHUT OFF SWITCH (TO THE MIDDLE) AND LOOSEN VICE GRIP SO YOU CAN SLIDE OUT PIPE FAR ENOUGH FOR NEXT CUT.



10. REPEAT JOB STEPS 2-9 FOR OTHER TWO (2) PIECES.



building maintenance & engineering

unit: PLUMBING - GENERAL MAINTENANCE

capital area career center

module: 2201 02 028 3 date: 9/77 level:

skill title: POWER TAPERING OF GALVANIZED PIPE

developed & written by: ALAN STEINBERG

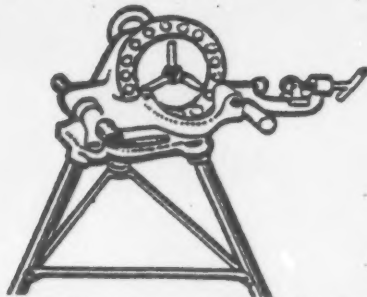
visuals by: DAVE WEHRWEIN

WORD GUIDE

TAPER - THIN DOWN, MAKE SMALLER.

PERFORMANCE OBJECTIVEYOU ARE GOING TO LEARN:

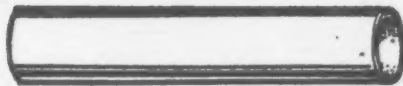
HOW TO TAPER THE INSIDE ENDS OF A PIECE OF PIPE.

IN ORDER TO DO THIS YOU WILL NEED:

A POWER-DRIVEN PIPE MACHINE



A TAPERING TOOL



A PIECE OF PIPE



GLOVES

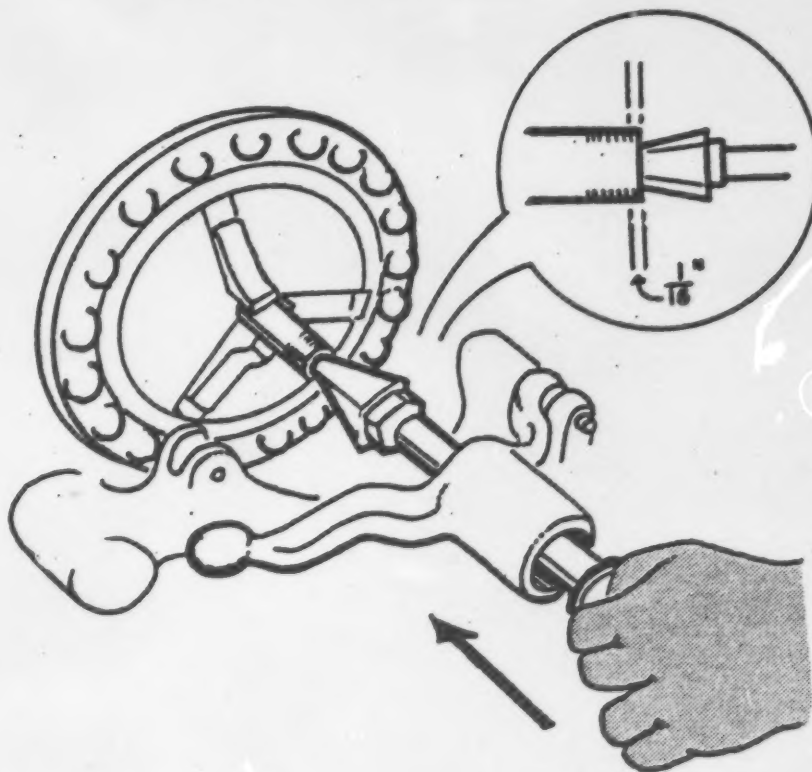
WE WILL KNOW YOU CAN DO IT WHEN:

THE INSIDE EDGES OF PIPE ENDS YOU HAVE TAPERED ARE SMOOTH
WHILE THE PIPE WALL THICKNESS REMAINS THE SAME.

INFORMATION

BEFORE DOING THE JOB STEPS, WATCH THE SLIDE TAPE ON "POWER TAPERING OF GALVANIZED PIPES".

* CAUTION! WHEN PUSHING IN TAPERING TOOL, USE SLIGHT PRESSURE.
* DO NOT PUSH IN MORE THAN 1/16TH OF AN INCH OR YOU
* MAY BEND OUT THE PIPE TOO MUCH.



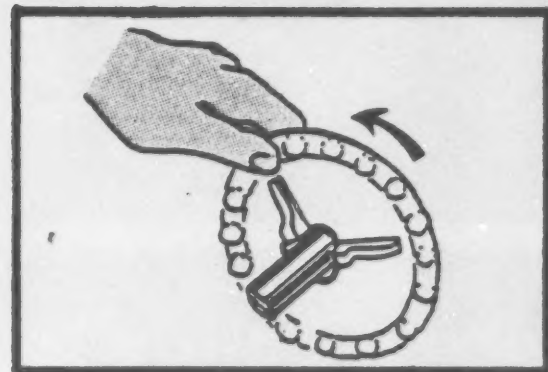
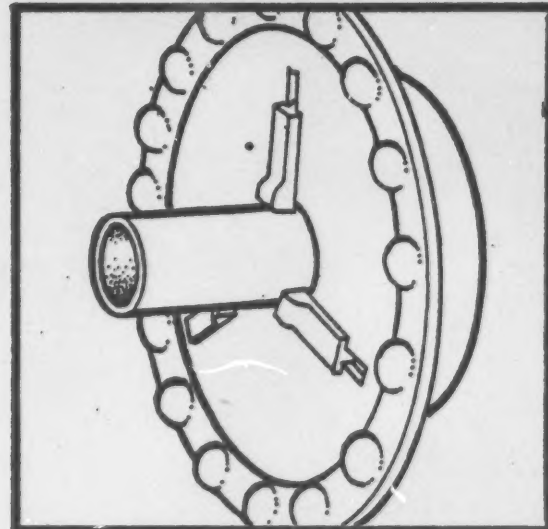
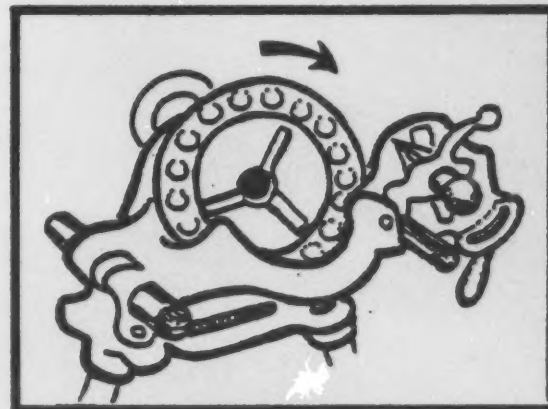


CLOCKWISE - TO THE RIGHT.

COUNTER-CLOCKWISE - TO THE LEFT.

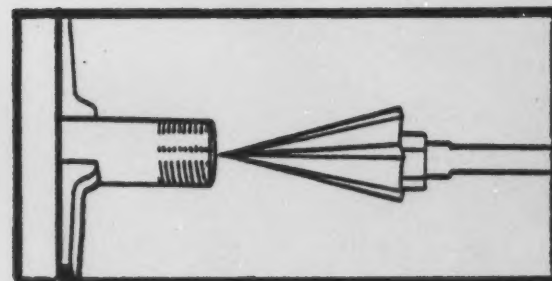
JOB STEPS

1. TAKE ALL EQUIPMENT AND MATERIALS TO YOUR WORK AREA.
2. LOOSEN MACHINE CHUCK BY TURNING WHEEL ("A") CLOCKWISE, AS YOU FACE MACHINE.
3. PUT PIPE INTO MACHINE CHUCK, LEAVING AT LEAST 4 INCHES OUTSIDE TOWARD THE MACHINE END.
4. TURN WHEEL ("A") COUNTER-CLOCKWISE TO TIGHTEN CHUCK.



JOB STEPS

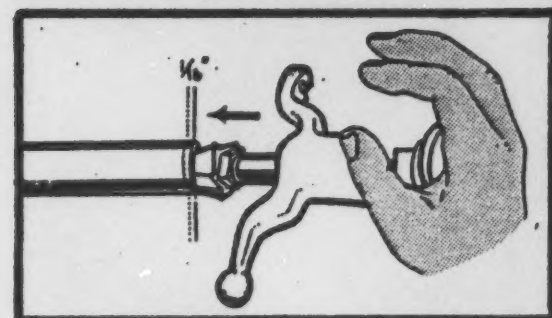
5. PUT TAPERING TOOL ("B") IN LINE WITH PIPE.



6. TURN ON ELECTRICAL SWITCH;
THE PIPE WILL TURN AROUND
IN MACHINE CHUCK.



7. GENTLY PUSH TAPERING TOOL
INTO PIPE END ABOUT 1/16TH
OF AN INCH.

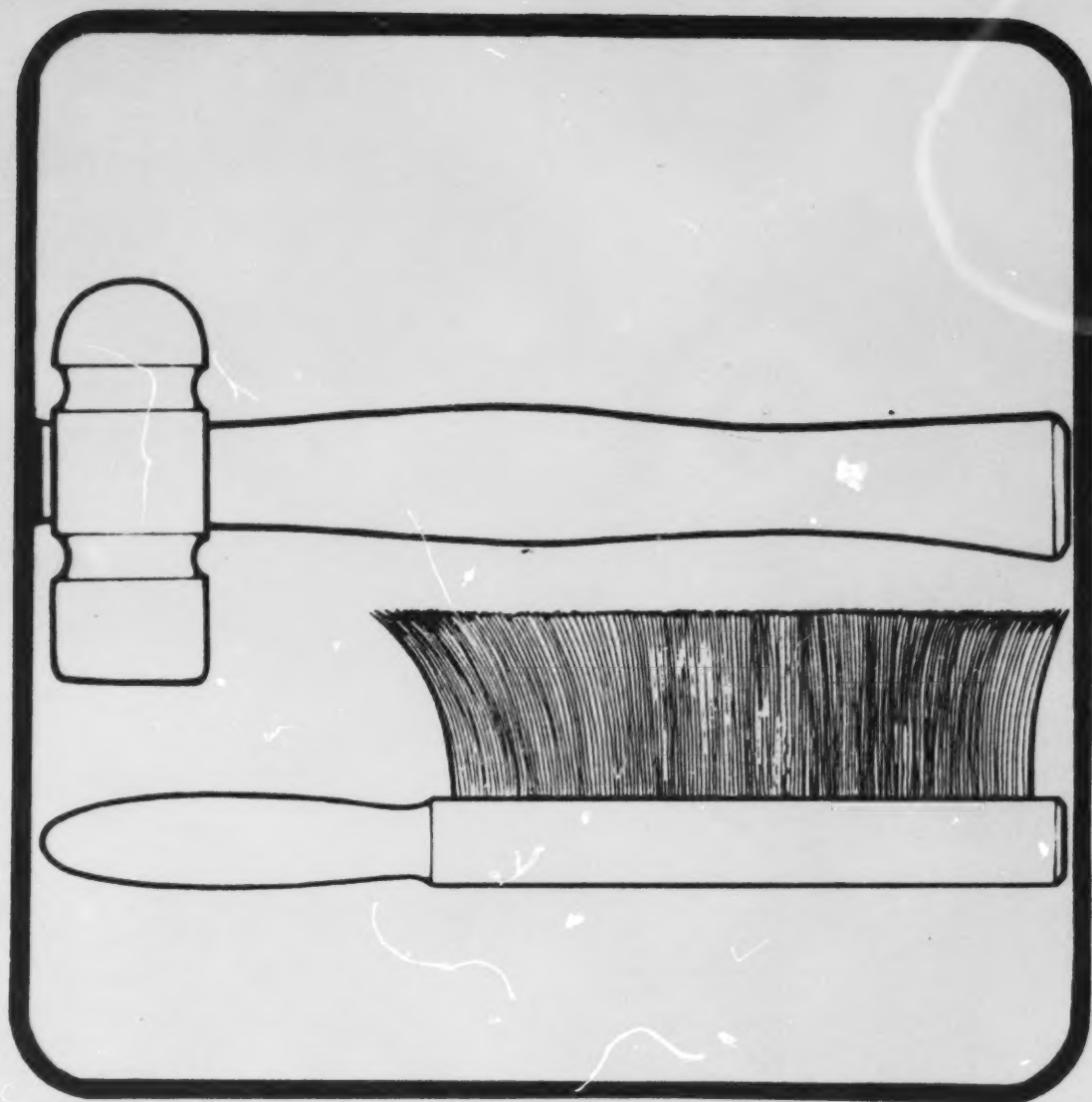


8. TAKE OUT TAPERING TOOL AND
TURN OFF ELECTRICAL SWITCH.



9. CHECK INSIDE OF PIPE END FOR
SHARP EDGES. IF THERE ARE
ANY, REPEAT JOB STEPS 6, 7
AND 8. IF THERE AREN'T ANY,
YOU ARE READY FOR THREADING.





building maintenance & engineering

unit: GENERAL MAINTENANCE (PLUMBING)

capital area career center

module: 2201 02 030 3 date: MAY 1977 level: I

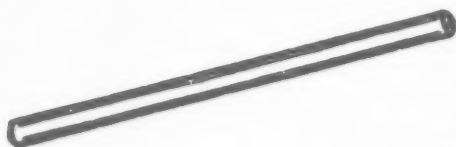
skill title: USE OF PIPE BENDER

developed & written by: DWIGHT SMITH

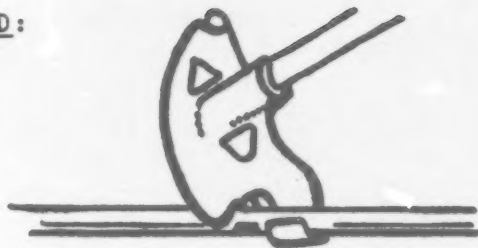
visuals by: DAVE WEHRWEIN

PERFORMANCE OBJECTIVEYOU ARE GOING TO LEARN:

HOW TO BEND A PIPE USING A PIPE BENDER.

AND IN ORDER TO DO THIS YOU WILL NEED:

2 FEET OF COPPER TUBING



PIPE BENDER FOR THE SIZE PIPE
YOU HAVE

WE WILL KNOW THAT YOU CAN DO IT WHEN:

YOU HAVE BENT A PIECE OF PIPE SO THAT:

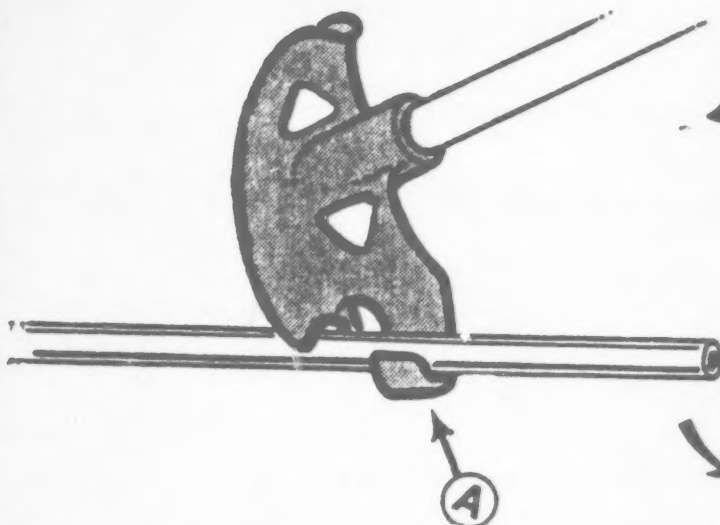
- A. THE BEND IS SMOOTH AND WITHOUT ANY FLAT SPOTS.
- B. THE BEND IS 90 DEGREES WHEN CHECKED WITH A SQUARE.

JOB STEPS

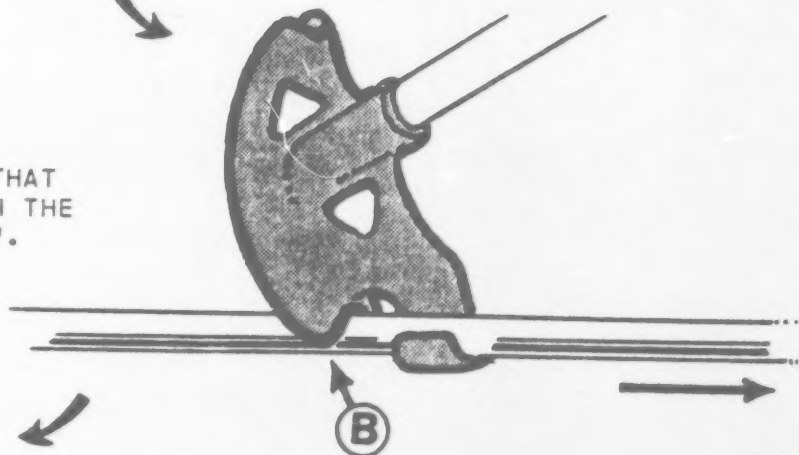
1. GET THE EQUIPMENT AND SUPPLIES YOU NEED AND GO TO THE WORK AREA.



2. PUT THE COPPER PIPE IN THE OPENING NEAR LEVER "A".



3. SLIDE IN THE PIPE UNTIL THAT PART OF THE PIPE AT WHICH THE BEND WILL START IS AT "B".



4. PUT THE PIPE ON THE FLOOR WITH THE BENDER POINTED STRAIGHT UP.



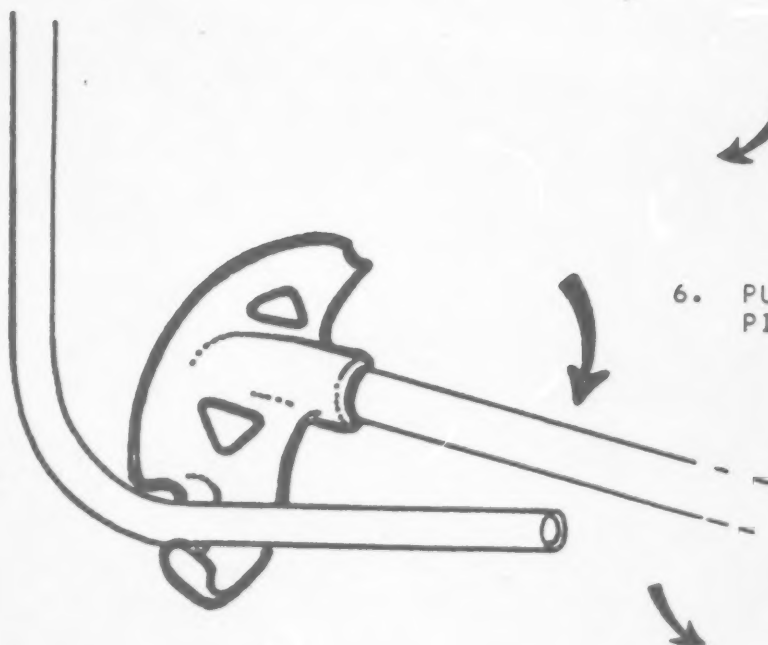
JOB STEPS

5. PUSH DOWN THE HANDLE UNTIL PIPE IS BENT AT A 90-DEGREE ANGLE.

NOTE: LEVER "A" MUST SLIDE TOWARD "B".



6. PULL BACK THE HANDLE AND REMOVE PIPE.



7. USING A CARPENTER'S SQUARE, CHECK THE ANGLE OF YOUR BEND. MEASURE IT LIKE THIS:



JOB STEPS

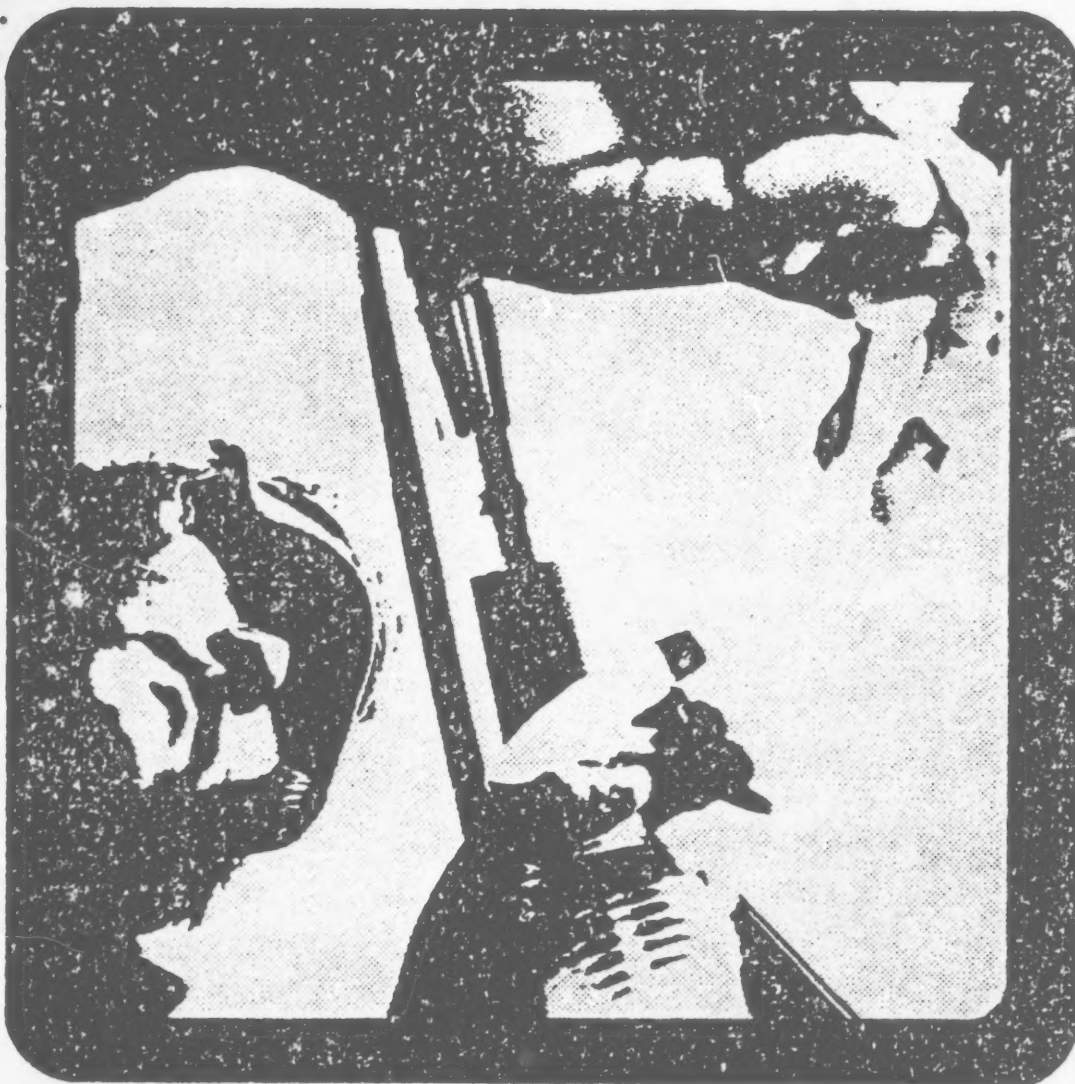
8. IF THE ANGLE IS 90 DEGREES, SHOW YOUR WORK TO YOUR INSTRUCTOR.



9. NOW YOU KNOW HOW TO BEND COPPER PIPE.



10. PUT AWAY ALL EQUIPMENT.



building maintenance & engineering

unit: REST ROOMS

capital area career center

module: 2201 03 001 3 date: 1/4/77 level:

skill title: FILLING DISPENSERS

developed & written by: A. STEINBERG

visuals by: SHERRI BAKER

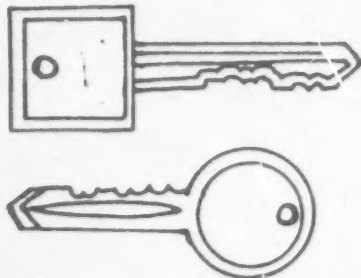
WORD GUIDE

DISPENSER - A CONTAINER FOR SUPPLIES
LIKE SOAP, PAPER TOWELS
AND CUPS.

SANITARY NAPKINS - A PAD SOMETIMES WORN BY
WOMEN.

PERFORMANCE OBJECTIVEYOU ARE GOING TO LEARN:

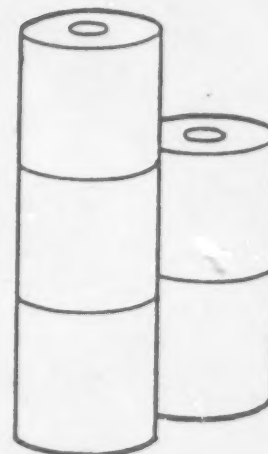
HOW TO CHECK AND SUPPLY ALL REST ROOM DISPENSERS.

AND IN ORDER TO DO THIS YOU WILL NEED:

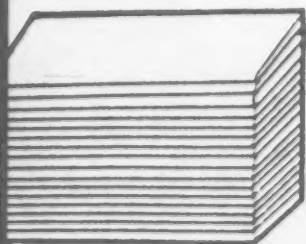
KEYS TO DISPENSERS



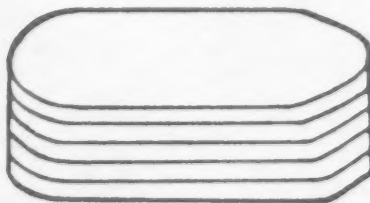
LIQUID, POWDER,
AND BAR SOAP



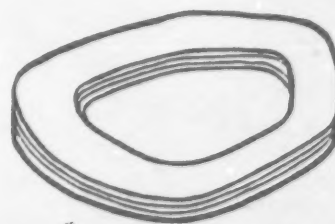
TOILET PAPER ROLLS



HAND TOWELS



SANITARY NAPKINS



PAPER TOILET-SEAT COVERS

WE WILL KNOW YOU CAN DO IT WHEN:

YOU HAVE FILLED ALL REST ROOM DISPENSERS SO THAT THEY ARE
FULL FOR THE NEXT DAY.

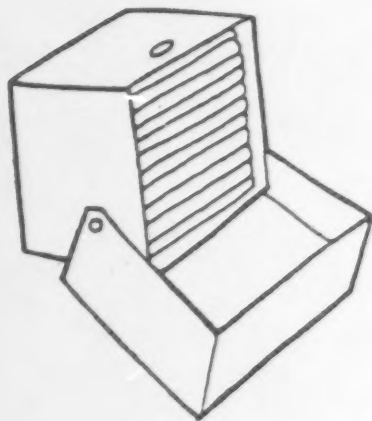
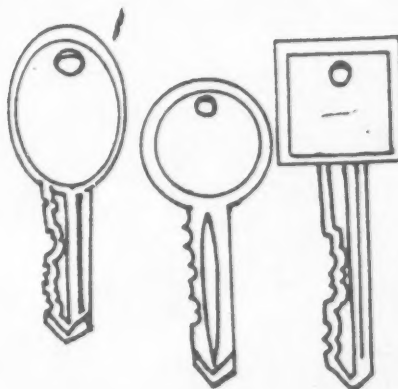
WHY DO REST ROOMS HAVE DISPENSERS?

- A. TO KEEP REST ROOMS NEAT.
- B. TO SAVE TIME.
- C. TO KILL MICE.
- D. TO SERVE EVERYBODY WITH NEEDED BATHROOM SUPPLIES.

DID YOU PICK "D?"

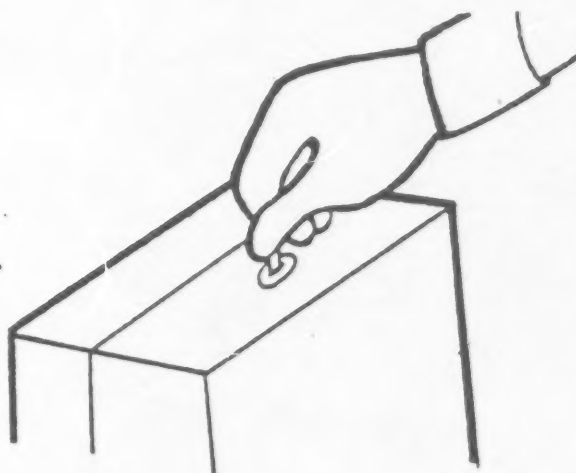
INFORMATION	MATERIALS	LOCATION OF MATERIALS
WHY DO YOU CHECK AND SUPPLY ALL REST ROOM DISPENSERS? BECAUSE SUPPLIES OF HAND TOWELS, TOILET PAPER ROLLS, SANITARY NAPKINS, PAPER TOILET-SEAT COVERS, AND SOAP ARE QUICKLY USED UP. IF YOU LEAVE DISPENSERS EMPTY, NO ONE WILL BE ABLE TO USE THE REST ROOM. BY CHECKING AND SUPPLYING ALL REST ROOM DISPENSERS, YOU CAN ALSO PREPARE THE REST ROOM FOR EVERYBODY'S USE THE NEXT DAY. BE SURE THAT YOU HAVE AN EQUIPMENT CHECKLIST FOR THE REST ROOM UNIT.		

1. COLLECT DISPENSER KEYS AND ALL EQUIPMENT AND GO TO YOUR JOB AREA. USE EQUIPMENT CHECKLIST TO BE SURE YOU HAVE EVERYTHING YOU NEED.



2. USING THE RIGHT KEY, OPEN AND CHECK ALL HAND TOWEL DISPENSERS. READ DIRECTIONS ON EACH DISPENSER. FOLLOWING THESE DIRECTIONS, FILL EACH DISPENSER TO THE TOP.

3. CLOSE AND LOCK DISPENSER.

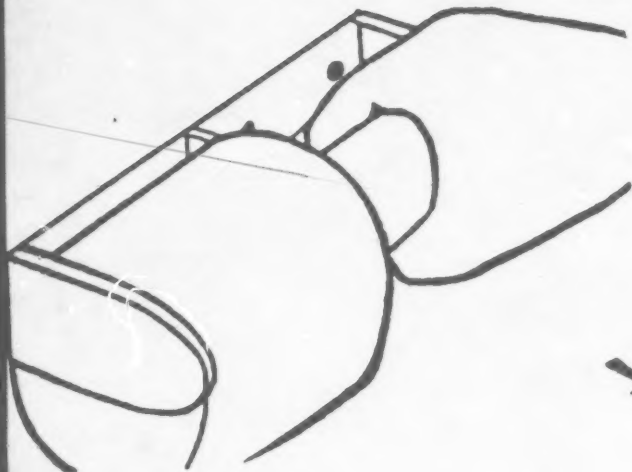


4. USING THE RIGHT KEY, OPEN AND CHECK ALL TOILET PAPER DISPENSERS. IF THERE IS LESS THAN 1/4 OF A ROLL LEFT ON ANY DISPENSER, REPLACE THIS WITH A NEW ROLL.

377 a

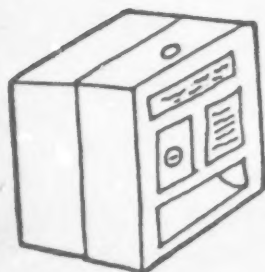
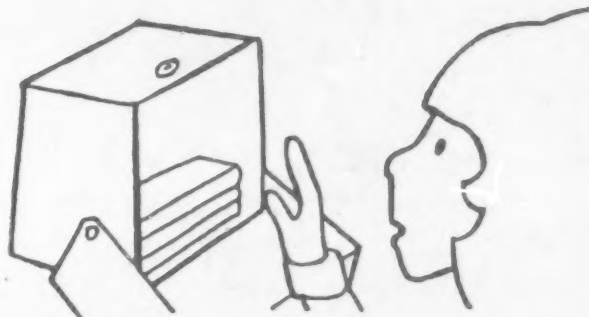
WORD GUIDE

BRAND NAME - COMPANY OR PRODUCER'S
NAME OF PRODUCT.

JOB STEPS

5. SOME DISPENSERS HOLD 2 ROLLS. IN THESE, REPLACE A ROLL ONLY WHEN ONE OF THESE 2 ROLLS IS EMPTY. CLOSE AND LOCK DISPENSERS.

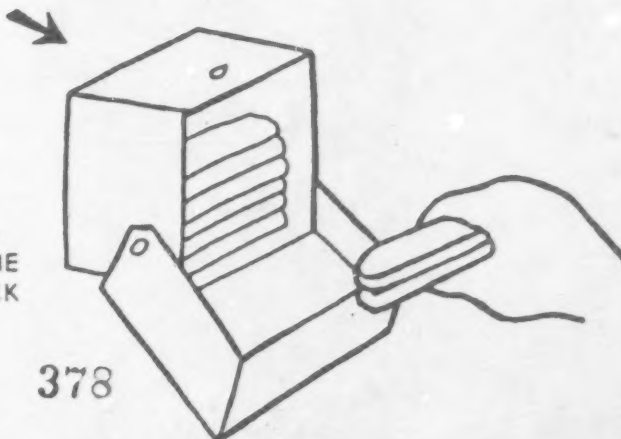
6. USING THE RIGHT KEY, OPEN AND CHECK ALL SANITARY NAPKIN DISPENSERS.



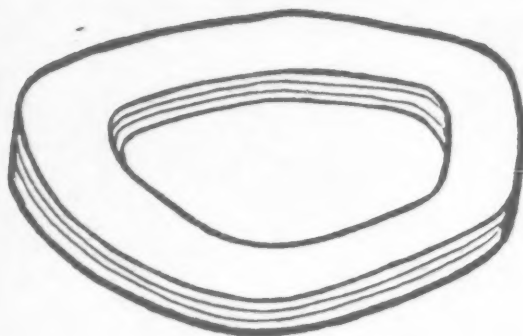
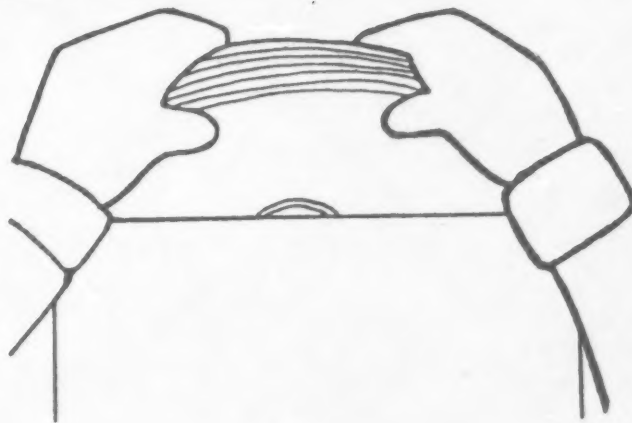
7. READ THE BRAND NAME OF NAPKINS USED IN EACH DISPENSER. READ DIRECTIONS ON EACH DISPENSER.



8. FOLLOWING THESE DIRECTIONS, FILL EACH DISPENSER WITH THE RIGHT BRAND. CLOSE AND LOCK DISPENSER.



9. OPEN AND CHECK ALL PAPER TOILET-SEAT COVER DISPENSERS. READ DIRECTIONS ON EACH DISPENSER.



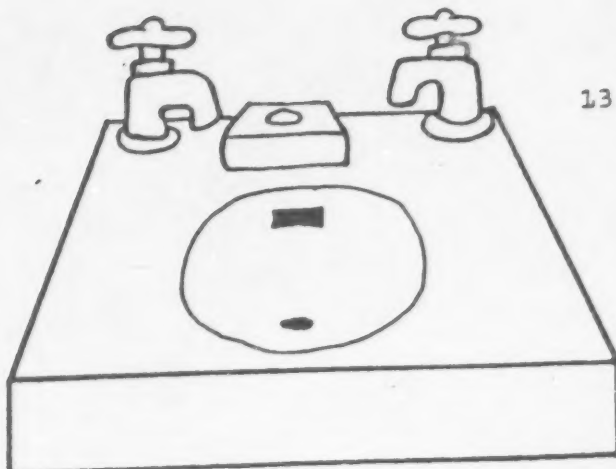
10. FOLLOWING THESE DIRECTIONS, FILL EACH DISPENSER TO THE TOP. CLOSE THE DISPENSER.



11. OPEN AND CHECK ALL HAND SOAP DISPENSERS. READ DIRECTIONS ON EACH DISPENSER.

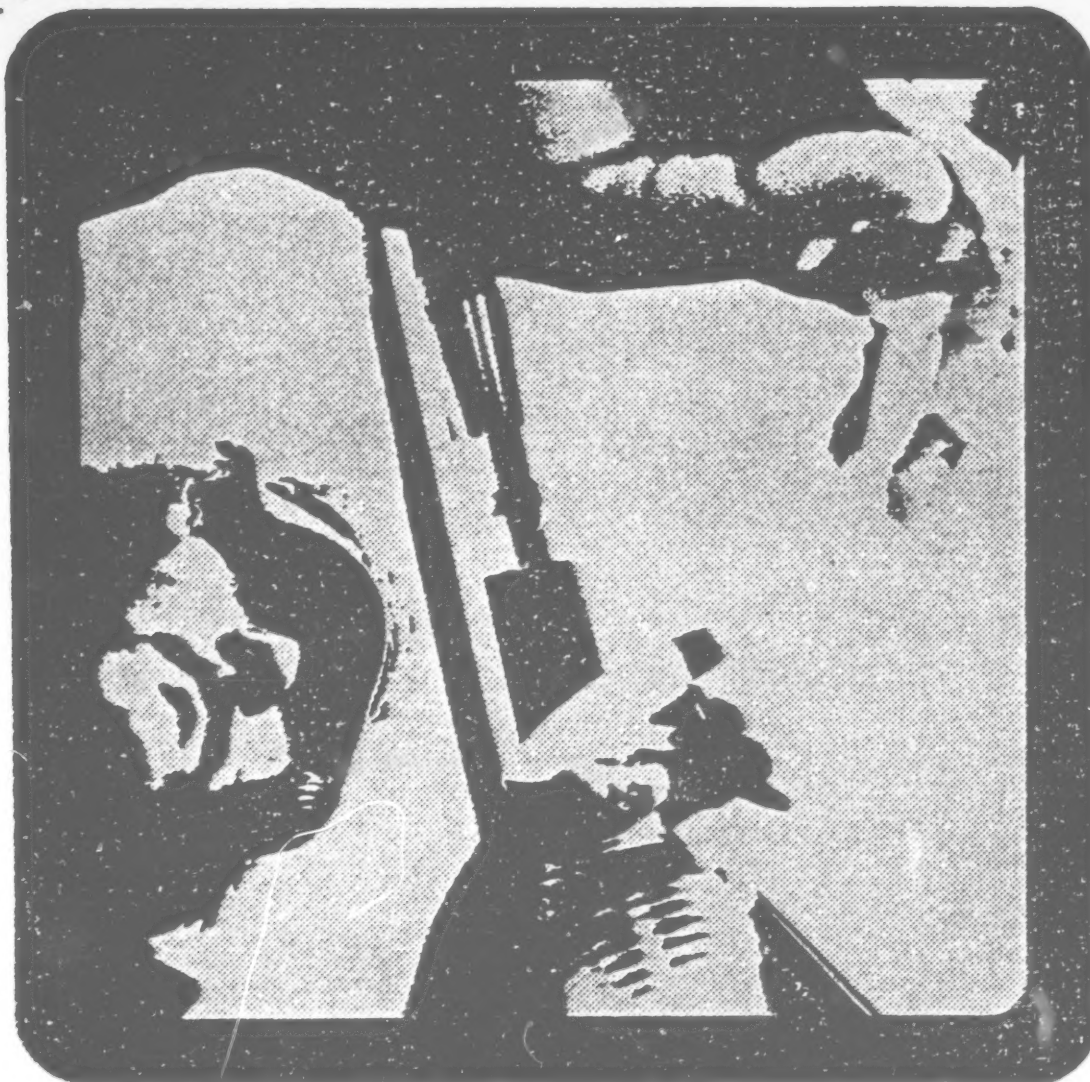


12. FOLLOWING THESE DIRECTIONS, REFILL ALL LIQUID AND THEN POWDER DISPENSERS TO PROPER LEVELS. CLOSE AND LOCK DISPENSERS.

JOB STEPS

13. CHECK EACH SINK FOR SOAP BARS IF THERE IS LESS THAN 1/4 OF A BAR LEFT ON ANY SINK, REPLACE THIS WITH A FULL, NEW BAR.

14. RETURN ALL UNUSED SUPPLIES.
NICE WORK!!!



building maintenance & engineering

unit: REST ROOMS

capital area career center

module: 2201 03 2 3 date: 1/4/77 level:

skill title: SINKS AND MIRRORS

developed & written by: A. STEINBERG

visuals by: SHERRI BAKER

WORD GUIDE

SCOURING POWDER - GRITTY, SAND LIKE
POWDER USED TO
SCRUB STAINS AND
DIRT.

PERFORMANCE OBJECTIVEYOU ARE GOING TO LEARN:

HOW TO CLEAN ALL REST ROOM SINKS AND MIRRORS.

AND IN ORDER TO DO THIS YOU WILL NEED:

SCOURING POWDER



GLASS CLEANER (SPRAY)



SPONGES



ALL-PURPOSE CLEANER-DISINFECTANT



WIPING CLOTHS

WE WILL KNOW YOU CAN DO IT WHEN:

YOU HAVE CLEANED STAINS, WATER MARKS, AND DIRT FROM REST ROOM
SINKS AND MIRRORS.

WORD GUIDE

SANITARY - FREE FROM DIRT AND
GERMS. VERY CLEAN.

INFORMATION

WHY DO YOU CLEAN REST ROOM SINKS AND MIRRORS?

BECAUSE IF YOU LEAVE DIRT, STREAKS, AND WATER SPOTS ON
SINKS AND MIRRORS, THEY WILL NO LONGER BE SANITARY.

BY CLEANING REST ROOM SINKS AND MIRRORS, YOU CAN KEEP THEM
SANITARY FOR EVERYBODY'S USE.

JOB STEPS

1. GET ALL EQUIPMENT AND GO TO YOUR WORK AREA. POUR SOME SCOURING POWDER ONTO EACH SINK AND RUB WITH A DAMP SPONGE.



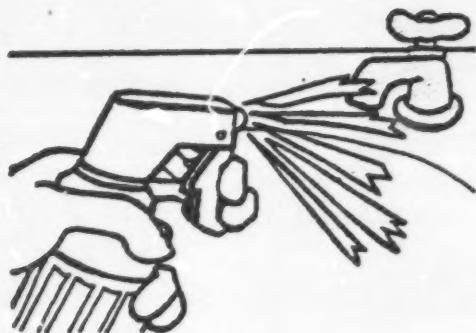
2. RINSE SPONGE WITH WATER. SQUEEZE EXTRA SOAP AND WATER FROM SPONGE.

3. RUB SINK AGAIN WITH THIS DAMP SPONGE.



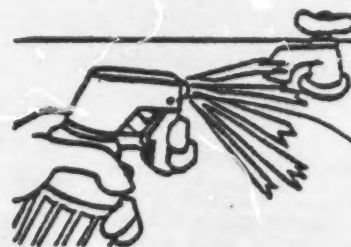
JOB STEPS

4. WIPE DRY WITH A CLEAN WIPING CLOTH.



5. SPRAY SOME ALL-PURPOSE CLEANER ON TOP AND SIDES OF SINK. THEN SPRAY SOME ON FAUCET AND FAUCET HANDLES. WIPE ALL DRY WITH A WIPING CLOTH.

6. IF YOU SEE STREAKS OR WATER SPOTS ON SINK, SPRAY THESE WITH ALL-PURPOSE CLEANER AND THEN WIPE DRY WITH A CLEAN WIPING CLOTH.



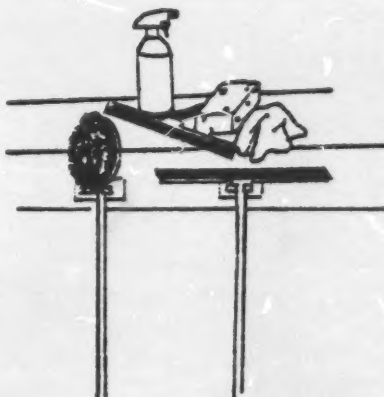
JOB STEPS

7. SPRAY ALL SOAP DISPENSERS WITH ALL-PURPOSE CLEANER. WIPE DRY WITH A CLEAN WIPING CLOTH. BE CAREFUL NOT TO SPRAY WALLS.



8. SPRAY ALL MIRRORS WITH GLASS CLEANER. WIPE DRY WITH A CLEAN WIPING CLOTH.

9. RETURN ALL EQUIPMENT. BE SURE ALL EQUIPMENT IS CLEANED.





building maintenance & engineering

unit: REST ROOMS

capital area career center

module: 2201 03 003 3 date: 2-4-77 level:

skill title: TOILETS AND URINALS

developed & written by: A. STEINBERG

visuals by: SHERRI BAKER

WORD GUIDE

SANITIZE - TO FREE FROM DIRT, TO GET VERY CLEAN.

PERFORMANCE OBJECTIVEYOU ARE GOING TO LEARN:

HOW TO CLEAN AND SANITIZE REST ROOM TOILETS AND URINALS.

AND IN ORDER TO DO THIS YOU WILL NEED:

RUBBER GLOVES



CLEAN WIPING CLOTHS



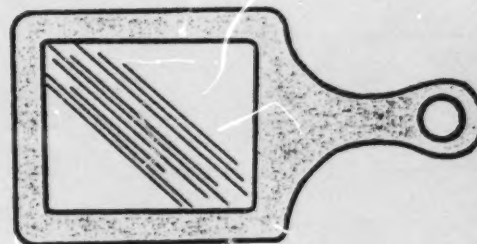
TOILET BOWL SWAB



RUBBER PLUNGER



ALL-PURPOSE CLEANER
AND DISINFECTANT



HAND MIRROR

WE WILL KNOW YOU CAN DO IT WHEN:

YOU HAVE CLEANED AND SANITIZED ALL REST ROOM TOILETS AND URINALS
SO NO DIRT OR STAINS ARE SHOWING AND THERE ARE NO ODORS.

WORD GUIDEDISINFECTING - CLEANING TO KILL GERMS.

INFORMATION	MATERIALS	LOCATION OF MATERIALS
<u>WHY DO YOU CLEAN AND SANITIZE REST ROOM TOILETS AND URINALS?</u> BECAUSE DIRTY TOILETS AND URINALS HAVE GERMS, STAINS, SPOTS, AND ODORS WHICH MAKE THEM UNSANITARY. BY CLEANING AND DISINFECTING TOILETS AND URINALS, YOU CAN KEEP THEM CLEAN AND SAFE FOR USE. BE SURE THAT YOU HAVE AN <u>EQUIPMENT CHECKLIST</u> FOR THE REST ROOM UNIT.		

A SANITIZED TOILET OR URINAL IS ONE THAT _____.

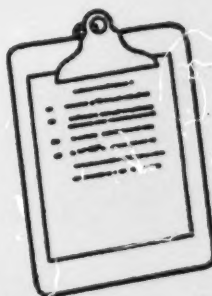
- A. HAS JUST BEEN PAINTED.
- B. HAS JUST BEEN POLISHED.
- C. HAS JUST BEEN BOILED.
- D. HAS JUST BEEN CLEANED AND DISINFECTED.

HOPE YOU PICKED "D".

JOB STEPS

CLEANING TOILETS

1. GET ALL THE EQUIPMENT AND GO TO YOUR WORK AREA. USE CHECKLIST TO BE SURE YOU HAVE EVERYTHING YOU NEED.



2. PUT ON RUBBER GLOVES.

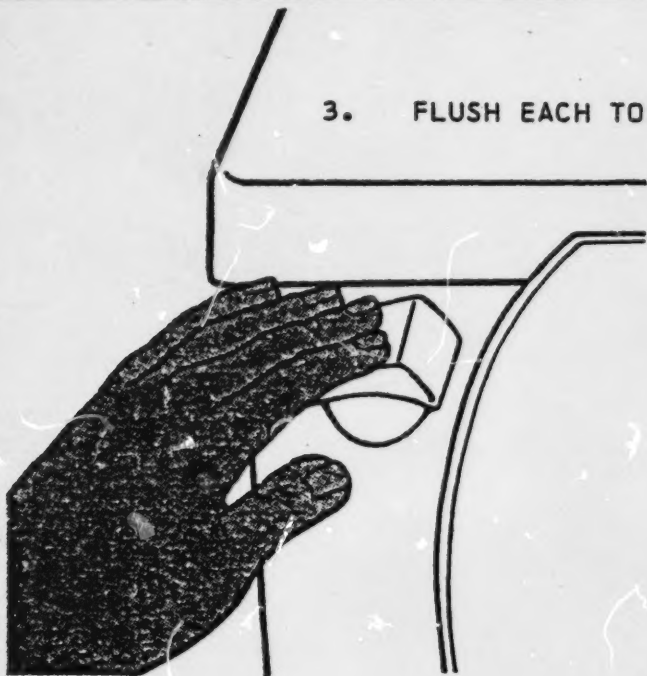


WORD GUIDE

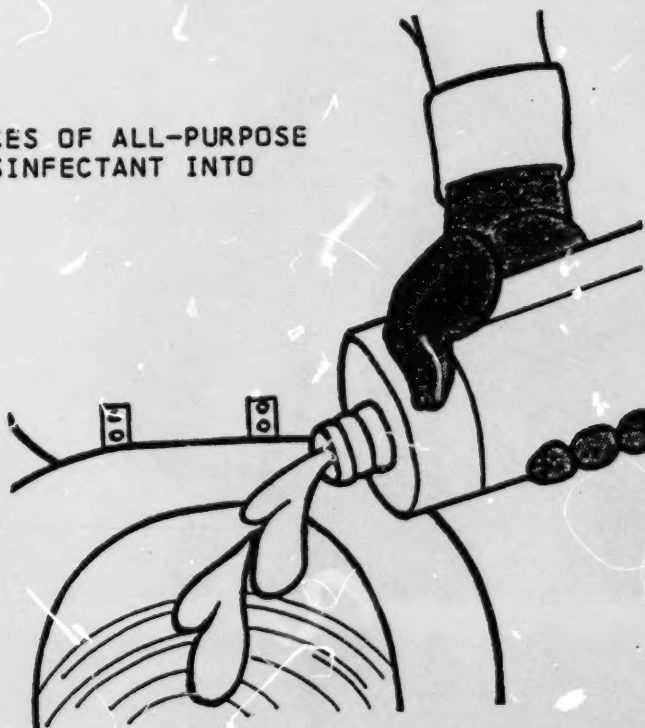
SWAB - SPONGE, CLOTH, OR COTTON ON A STICK USED FOR CLEANING.

JOB STEPS

3. FLUSH EACH TOILET.



4. POUR 2 OUNCES OF ALL-PURPOSE CLEANER-DISINFECTANT INTO TOILET.



WORD GUIDE

FIXTURE - SOMETHING ATTACHED TO SOMETHING ELSE, LIKE A TOILET HANDLE ATTACHED TO TOILET.

JOB STEPS

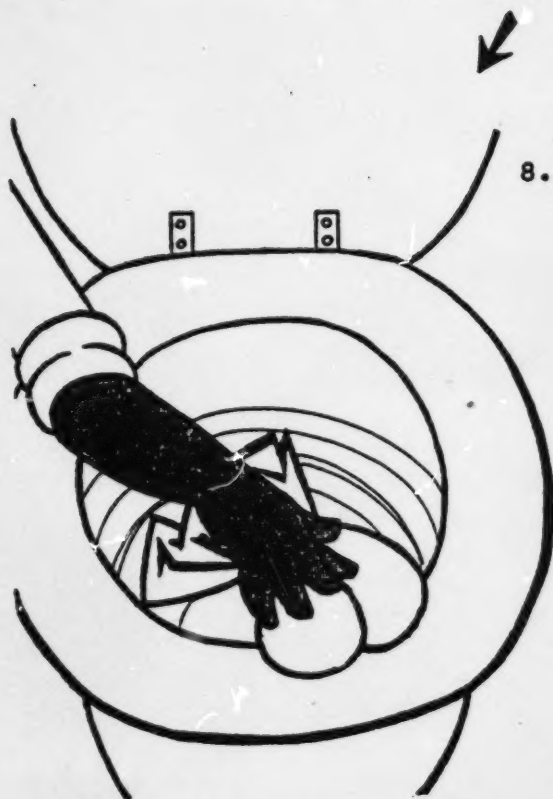
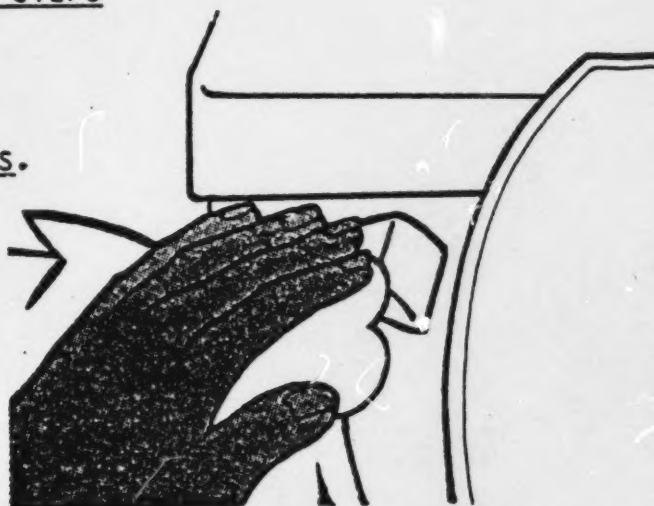
5. USING THE SWAB, RUB THE INSIDE AREA OF TOILET BOWL. BE SURE TO RUB VERY HARD UNDER THE BOWL RIM.



6. WET A CLEAN WIPING CLOTH WITH ALL-PURPOSE CLEANER-DISINFECTANT. CLEAN TOILET SEAT AND THEN OUTSIDE AREA OF TOILET BOWL.

JOB STEPS

7. THEN CLEAN ALL FIXTURES.



8. USING CLEAN, DRY, WIPING CLOTHS, WIPE DRY THE TOILET SEAT, THE OUTSIDE AREA OF TOILET BOWL AND THE FIXTURES.

9. RETURN ALL EQUIPMENT. BE SURE ALL EQUIPMENT IS CLEANED.

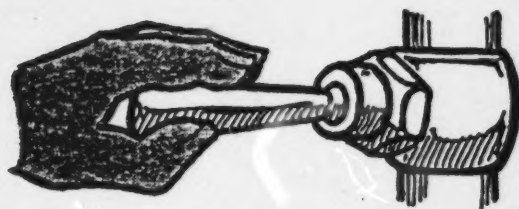
JOB STEPS

CLEANING URINALS

1. PUT ON RUBBER GLOVES.



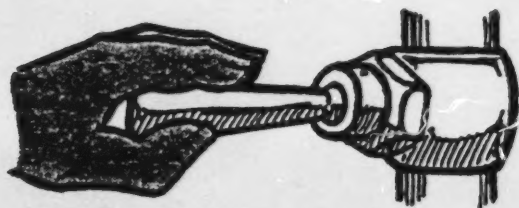
2. FLUSH EACH URINAL.



3. TAKE CIGARETTES, GUM, PAPER, AND OTHER THINGS OUT OF THE BOTTOM OF URINAL. THROW THEM INTO THE WASTE BASKET.



4. FLUSH EACH URINAL AGAIN.



JOB STEPS

5. POUR 2 OUNCES OF ALL-PURPOSE CLEANER-DISINFECTANT INTO URINAL.



6. USING THE SWAB, RUB THE INSIDE AREA OF THE URINAL. BE SURE TO RUB VERY HARD UNDER THE LIP AT THE BOTTOM OF URINAL.



7. WET A CLEAN WIPING CLOTH WITH ALL-PURPOSE CLEANER-DISINFECTANT. CLEAN THE OUTSIDE AREA OF URINAL.

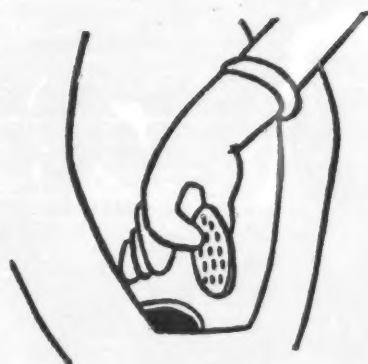


8. THEN CLEAN ALL FIXTURES.



JOB STEPS

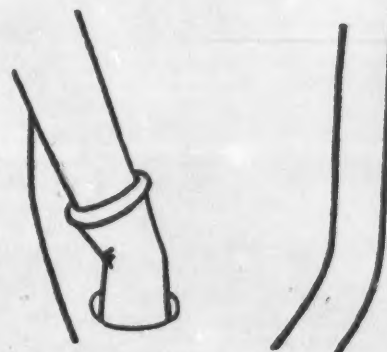
9. USING A CLEAN, DRY, WIPING CLOTH, WIPE DRY THE OUTSIDE AREA OF THE URINAL ALSO WIPE THE FIXTURES.



10. ONCE A WEEK, TAKE OUT THE METAL STRAINER AT THE BOTTOM OF THE URINAL. TAKE OUT ANY HARD GUM OR DIRT AND THROW IN THE WASTE BASKET.



11. ONCE A WEEK, REACH DEEP INTO THE DRAINPIPE AND TAKE OUT ANY HARD GUM OR DIRT THERE. THROW HARD GUM OR DIRT INTO THE WASTE BASKE.



12. ONCE A WEEK, USE A RUBBER PLUNGER TO HELP KEEP DRAIN CLEAN.

JOB STEPS

13. REMEMBER TO CLEAN AND RETURN
EQUIPMENT.

NICE WORK!



building maintenance & engineering

unit: REST ROOMS

capital area career center

module: 2201 03 004 3 date: 1/7/77 level:

skill title: CLEANING WALLS AND PARTITIONS

developed & written by: A. STEINBERG

visuals by: MARIE GOUGEON

WORD GUIDE

PARTITION - SOMETHING THAT
SEPARATES OR
DIVIDES.

PERFORMANCE OBJECTIVEYOU ARE GOING TO LEARN:

HOW TO WASH AND SPOT CLEAN REST ROOM WALLS AND PARTITIONS.

AND IN ORDER TO DO THIS YOU WILL NEED:

PAIL



SPRAY BOTTLE



SPONGE



WIPING CLOTHS



ALL-PURPOSE CLEANER

WE WILL KNOW YOU CAN DO IT WHEN:

THE REST ROOM WALLS AND PARTITIONS THAT YOU HAVE CLEANED
HAVE NO STREAKS OR DIRT SPOTS.

WORD GUIDE

SANITARY - CLEAN, FREE FROM GERMS

INFORMATION

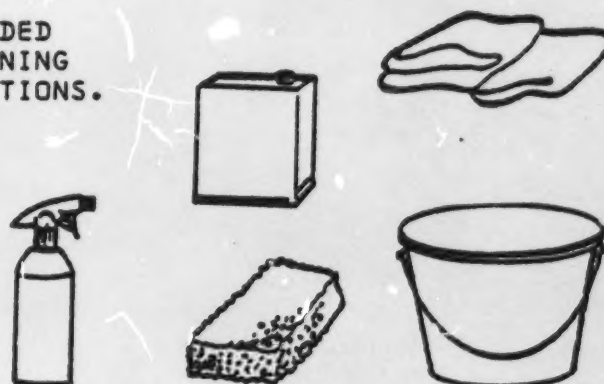
WHY DO YOU WASH AND SPOT CLEAN REST ROOM WALLS AND PARTITIONS?

IF YOU LEAVE DUST, STREAKS, AND WATER SPOTS ON REST ROOM WALLS AND PARTITIONS, VERY SOON THE WALLS WILL NO LONGER BE SANITARY.

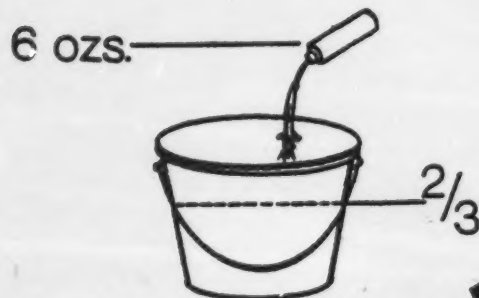
BY CLEANING REST ROOM WALLS AND PARTITIONS YOU CAN KEEP THEM SANITARY FOR EVERYBODY'S USE.

JOB STEPS

1. GET ALL THE EQUIPMENT NEEDED FOR WASHING AND SPOT CLEANING REST ROOM WALLS AND PARTITIONS. GO TO YOUR JOB AREA.



2. FILL A PAIL 2/3 FULL WITH WARM WATER.



3. ADD 6 OUNCES OF ALL-PURPOSE CLEANER TO THE WATER.

4. DIP A SPONGE INTO THE PAIL AND SQUEEZE THE SPONGE SO IT DOES NOT DRIP.



WORD GUIDE

STREAK - A LONG, NARROW
MARK OR SMEAR.

JOB STEPS

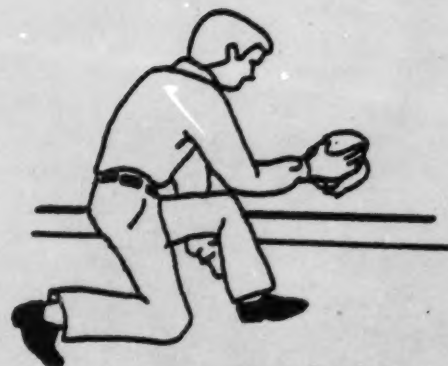
5. STARTING AT THE BOTTOM,
WASH THE WALL WITH SHORT
SIDE-TO-SIDE MOTIONS.



6. DO ONE SECTION AT A TIME,
ABOUT AS FAR AS YOU CAN
REACH WITHOUT WALKING.



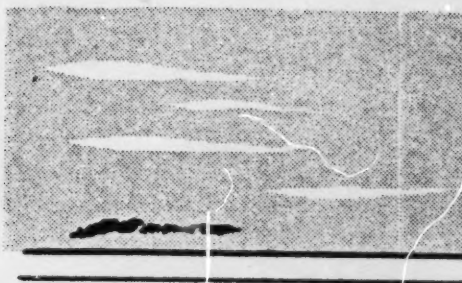
7. WHEN YOU FINISH ONE SECTION,
WIPE THE SECTION DRY WITH A
CLEAN WIPING CLOTH.



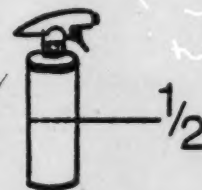
JOB STEPS

8. CONTINUE WASHING IN SECTIONS UNTIL THE WALL IS FINISHED.

9. BE SURE THAT NO STREAKS OR DIRT SPOTS REMAIN ON THE WALLS.



10. IF DIRTY SPOTS ARE STILL ON THE WALL FILL $\frac{1}{2}$ THE SPRAY BOTTLE WITH WATER AND $\frac{1}{2}$ ALL-PURPOSE CLEANER.



11. SPRAY THE ALL-PURPOSE CLEANER ON THE SPOTS.

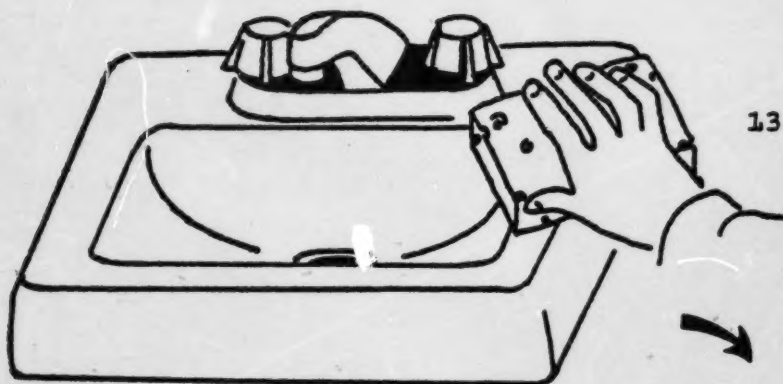


WORD GUIDE

DISPENSER - A CONTAINER OR PACKAGE FROM WHICH YOU CAN GET SUPPLIES SUCH AS PAPER TOWELS OR SOAP.

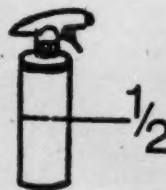
JOB STEPS

12. WIPE THE SPOTS DRY WITH A CLEAN WIPING CLOTH.

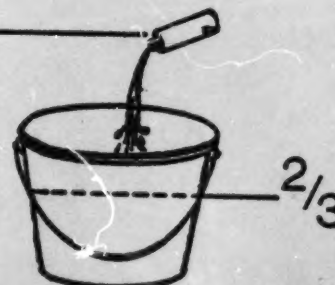


13. CHECK FOR SPOTS AROUND SINKS, URINALS, DISPENSERS, AND THE BACKS OF TOILETS. CLEAN THE SPOTS.

14. USE STEPS 5 THROUGH 12 TO CLEAN REST ROOM PARTITIONS. IF YOUR WATER BECOMES TOO DIRTY, USE STEPS 2 AND 3 TO CHANGE YOUR WATER. IF YOUR SPRAY BOTTLE IS EMPTY, USE STEP 10 TO FILL IT.

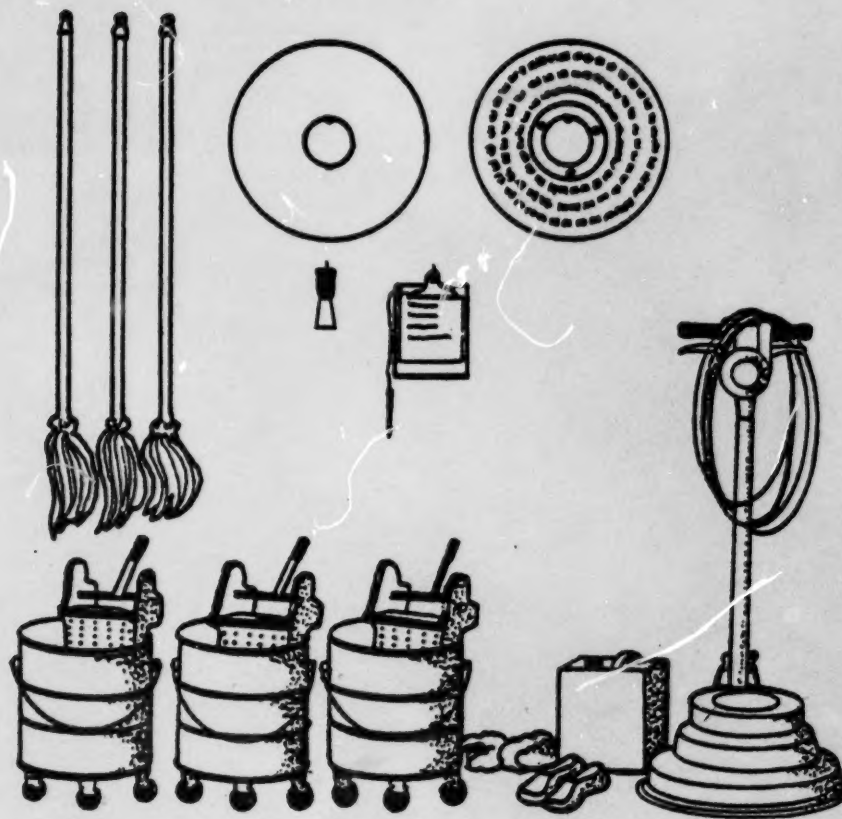


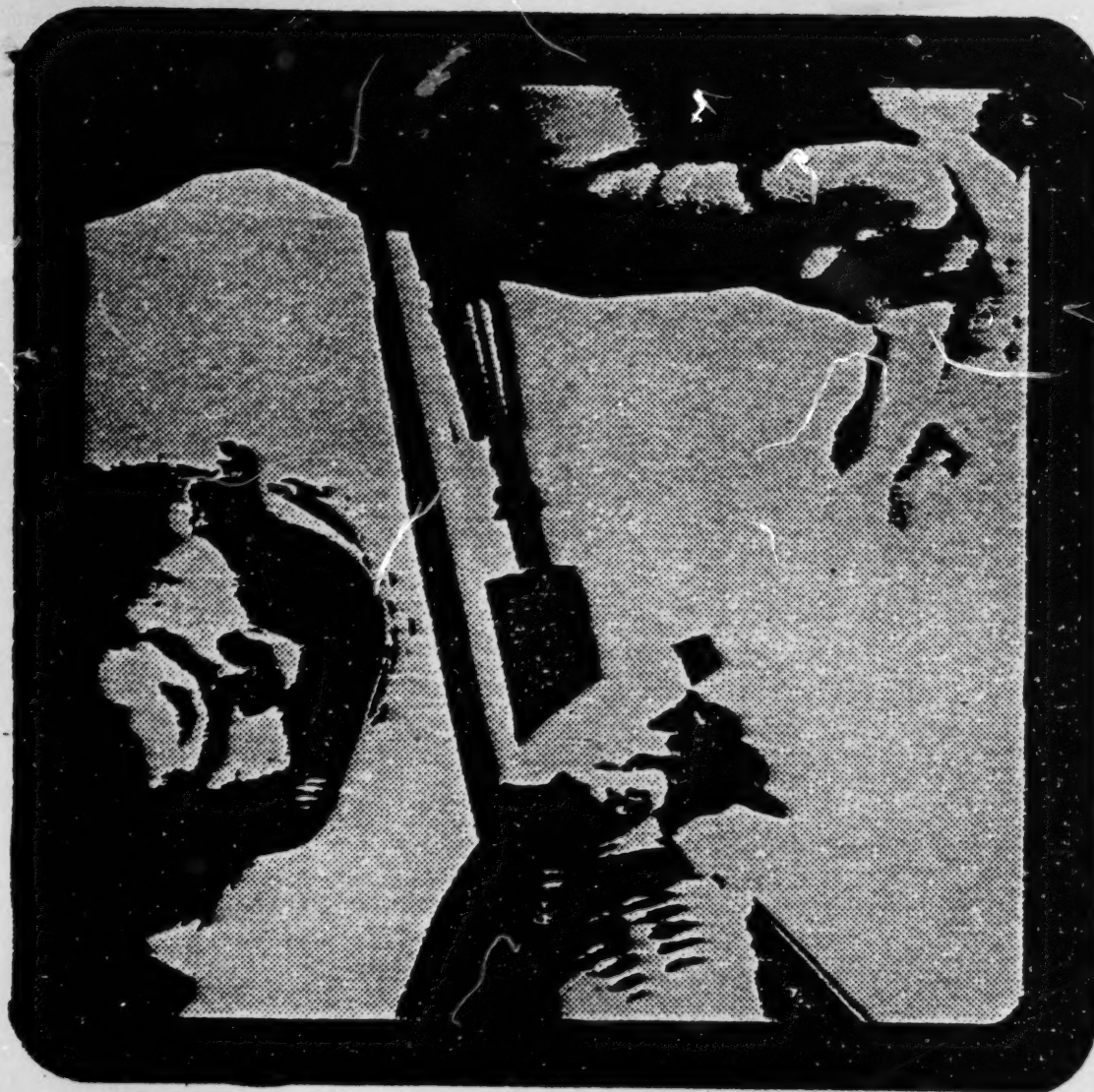
6 OZS.



JOB STEPS

15. RETURN ALL EQUIPMENT.
BE SURE ALL EQUIPMENT
IS CLEANED.





building maintenance & engineering

unit: REST ROOMS

capital area career center

module: 2201 03 005 3 date: 1/4/77 level:

skill title: COMPLETE CARE OF REST ROOMS

developed & written by: A. STEINBERG

visuals by: SHERRI BAKER

DISINFECTED - CLEANED TO KILL GERMS.

PERFORMANCE OBJECTIVE

YOU ARE GOING TO LEARN:

HOW TO FULLY CLEAN A REST ROOM EACH DAY FOR ONE WEEK.

AND IN ORDER TO DO THIS YOU WILL NEED:

A PUSH BROOM

2 MOP PAILS

A DUST PAN

1 MOP WRINGER

A BENCH BRUSH

ALL-PURPOSE CLEANER-DISINFECTANT

SWABS

LIQUID AND POWDER SOAP

GLASS CLEANER

BARs OF SOAP

A MOP

PAPER HAND TOWELS

SPONGES

PAPER TOILET ROLLS

WIPING CLOTHS

PAPER TOILET-SEAT COVERS

SANITARY NAPKINS

WE WILL KNOW YOU CAN DO IT WHEN:

WITHIN ONE HOUR, YOU HAVE CLEANED AND DISINFECTED FLOORS, WALLS, CEILINGS, SINKS, MIRRORS, TOILET BOWLS, AND URINALS, CHECKED AND FILLED ALL REST ROOM DISPENSERS.

INFORMATION

SEE MODULES YOU HAVE COMPLETED AS FOLLOWS:

MODULE 2201 03 001 3 - FILLING DISPENSERS
MODULE 2201 03 002 3 - CLEANING SINKS AND MIRRORS
MODULE 2201 03 003 3 - CLEANING TOILETS AND URINALS
MODULE 2201 03 004 3 - CLEANING WALLS AND PARTITIONS
MODULE 2201 08 001 3 - PAPER AND TRASH
MODULE 2201 08 002 3 - DISPOSAL OF PAPER AND TRASH
MODULE 2201 08 004 3 - MOP TO DISINFECT

NOW DO:

WATCH AND LISTEN TO THE SLIDE TAPE FOR THIS MODULE. YOU WILL LEARN HOW TO FULLY CLEAN A REST ROOM.

WHEN YOU HAVE FINISHED THE SLIDE TAPE, CONTINUE THIS MODULE BY TURNING TO THE NEXT PAGE.

407a

JOB STEPS

1. PUT TOGETHER ALL EQUIPMENT THAT YOU WILL NEED TO FULLY CLEAN A REST ROOM.

2. GO TO YOUR WORK AREA WITH YOUR EQUIPMENT.



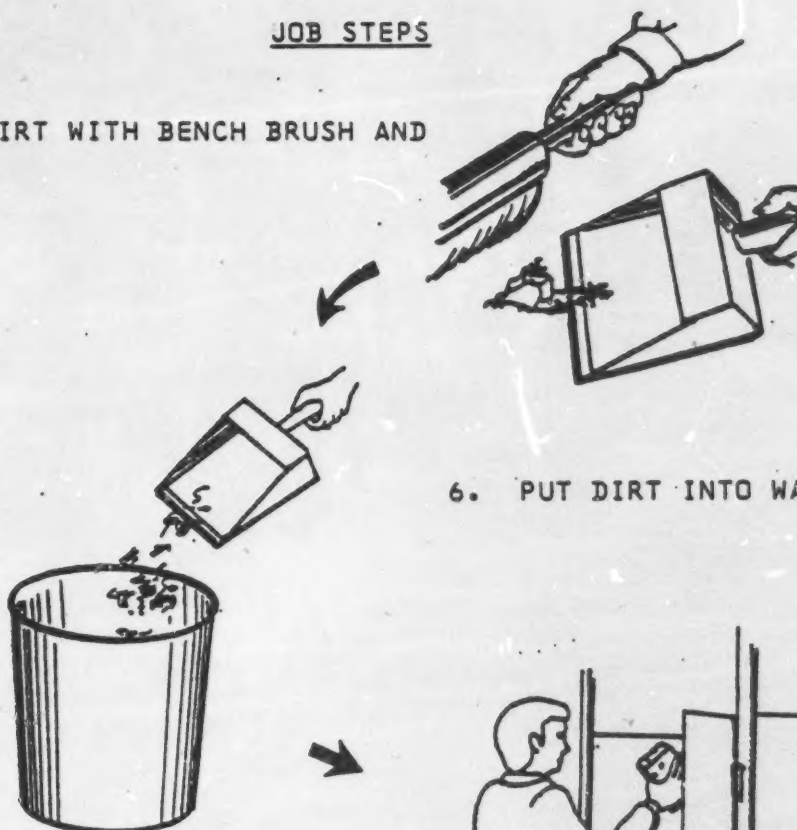
3. PUT UP A "DO NOT ENTER" SIGN BY THE ENTRANCE DOOR.

4. SWEEP FLOOR AREA WITH PUSH BROOM.



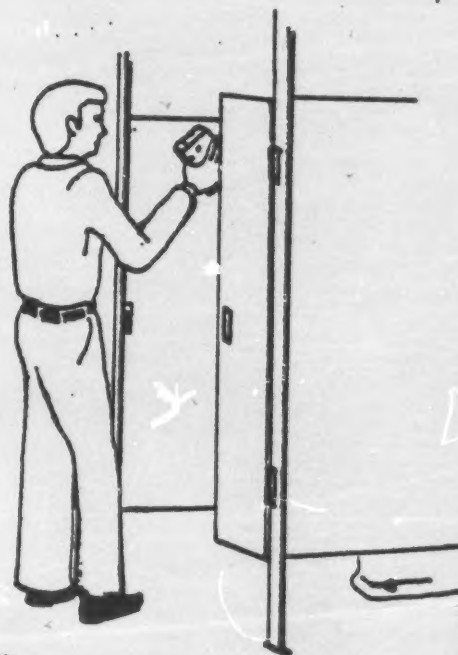
JOB STEPS

5. PICK UP DIRT WITH BENCH BRUSH AND DUST PAN.



6. PUT DIRT INTO WASTEBASKET.

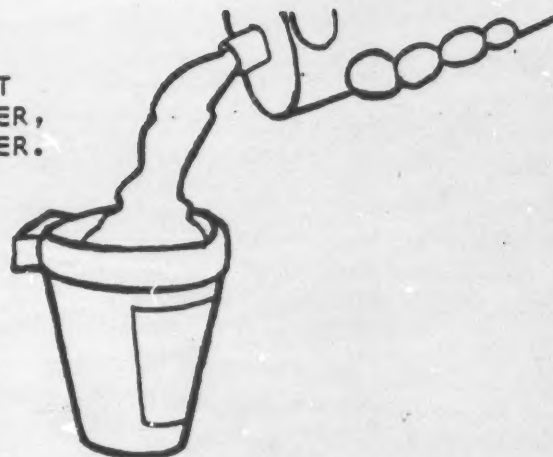
7. IF POSSIBLE, WASH CEILINGS, THEN WALLS, AND PARTITIONS.



8. CLEAN SINKS AND MIRRORS.

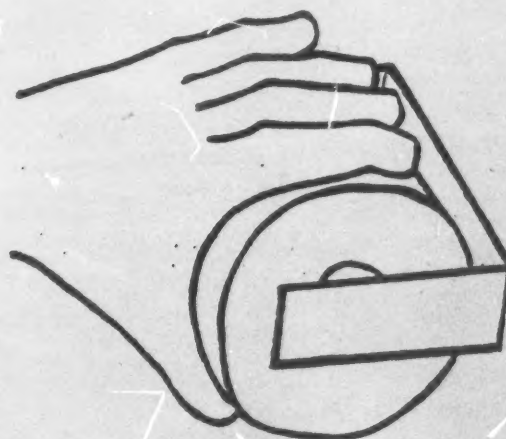
JOB STEPS

9. FILL ALL SOAP DISPENSERS. PUT POWDER SOAP IN POWDER DISPENSER, LIQUID SOAP IN LIQUID DISPENSER.



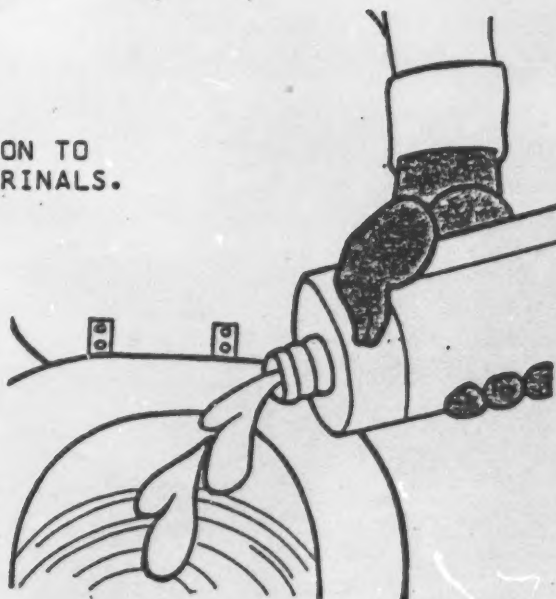
10. REPLACE OLD SOAP BARS WITH NEW ONES. IF ANY SINK HAS NO BAR OF SOAP, PUT A NEW BAR ON THIS SINK.

11. FILL ALL DISPENSERS FOR HAND TOWELS, PAPER TOILET ROLLS, PAPER TOILET-SEAT COVERS, AND SANITARY NAPKINS.



JOB STEPS

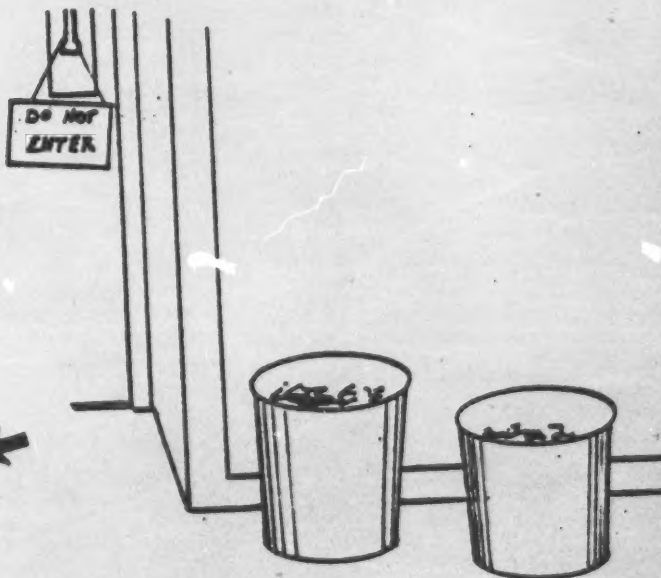
12. USE DISINFECTANT SOLUTION TO CLEAN ALL TOILETS AND URINALS.



13. FLUSH, THEN WASH THE OUTSIDE OF ALL TOILETS AND URINALS.



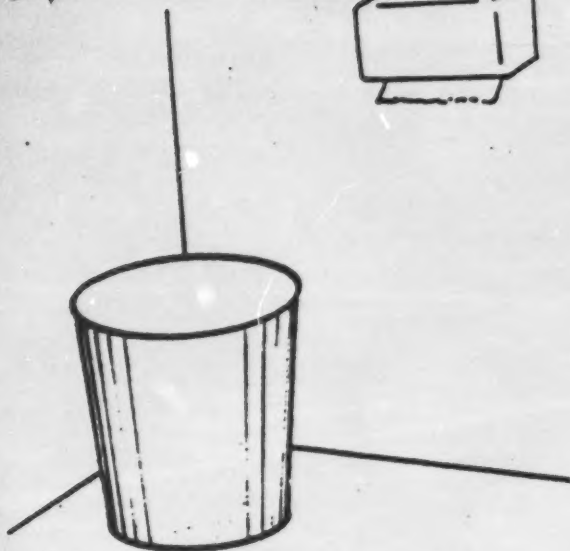
14. MOVE ALL WASTEBASKETS OUT OF THE REST ROOM.



15. MOP FLOOR WITH ALL-PURPOSE CLEANER-DISINFECTANT.

JOB STEPS

16. PUT WASTEBASKETS BACK IN PLACE, IF YOU HAVE MOVED THEM.



17. TAKE DOWN SIGN BY THE ENTRANCE DOOR.



18. RETURN ALL EQUIPMENT. BE SURE ALL EQUIPMENT IS CLEANED.